

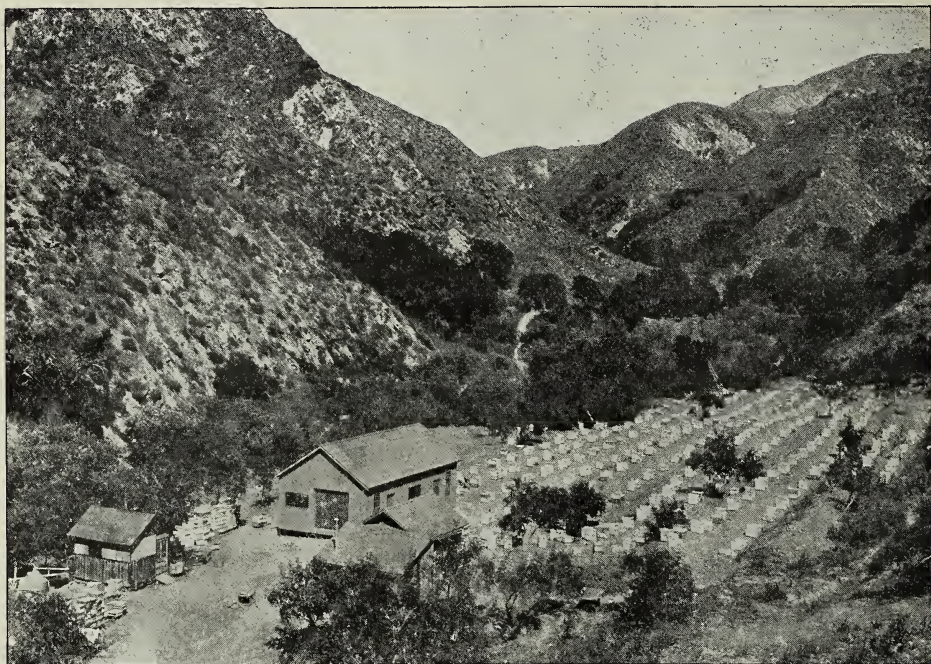
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This is Pacific Coast Year



The eyes of the nation are turned toward the empire of the western seaboard with its two expositions and its unparalleled opportunities for travel.

Similarly, the beekeepers of the West, producers of an important part of its wealth, are turning to the two branches of The A. I. Root Company for their supplies.

Californians and producers in other Pacific Coast states who are in the market for supplies are asked to write for catalogs and prices.

Full line of Root goods are carried at both offices. Do not forget those power extractors. Order your cases and cans early.

While enjoying the splendors of the Panama-California exposition at San Diego this year, remember to inspect The A. I. Root Company's exhibit in the Varied Industries Building. Our concession stands at the right of the east entrance where you can't miss it. It's interesting and comprehensive. See demonstrations of the new friction-drive power extractors. We have another exhibit in the Palace of Food Products at the Panama-Pacific exposition, San Francisco.

The A. I. Root Company

58 Sutter St., San Francisco

942 East Second St., Los Angeles

Gleanings in Bee Culture

Published by The A. I. Root Co., Medina, Ohio

A. I. ROOT, Editor Home Department
H. H. ROOT, Managing Editor

E. R. ROOT, Editor

J. T. CALVERT, Business Manager.

A. L. BOYDEN, Advertising Manager

Entered at the Postoffice, Medina, Ohio, as second-class matter.

VOL. XLIII.

OCTOBER 1, 1915

NO. 19

EDITORIALS

Honey-crop Reports and Prices

EVIDENCE is accumulating showing that the crop of clover and other northern white honeys is much larger this year than last. This is not saying that clover was not an entire failure in some parts of the North. The fall flow has been reported as being remarkably heavy in a large portion of the North. In other respects the western crop is about the same as reported in former issues.

Prices are running anywhere from 15 to 20 per cent lower than last year on all grades of extracted. There is probably more comb honey than was expected earlier in the season. It is now being unloaded, and there is every indication that it will bring good prices.

Excessive and Late Swarming this Fall; Clover Prospects for Next Season

WE have had a large number of reports this year of late swarming—of how the bees rushed out of their hives without even building queen-cells. One of our subscribers, whose letter we may publish, tells of getting 175 swarms from 70 colonies, spring count. There have been other reports of a similar nature. Many of the swarms came out without knowing where to go—that is, they left hurriedly without sending out scouts. Some swarms leave no queen-cells. One beekeeper packed his bees for winter, and then had a swarm come from the winter case. See what O. J. Jones and Dr. Miller have to say, p. 817.

It is evident that the cool rainy weather over a large part of eastern and northern United States during the spring and late summer has stimulated everything to a vigorous growth. Bees are working well on alsike, second-growth red clover, heartsease, Spanish needle, asters, buckwheat, and goldenrod, as they have never done before at this time of the year.

In all of our more than thirty years' experience in connection with this journal we do not remember a time when there were so many reports of such heavy flows in the fall. Everything seems to be raining down

honey except, possibly, white clover, which is still in bloom.

Beekeepers in the clover districts particularly seem to be jubilant over the prospects for next season, for never was there such a mass of young white clover as seems to show up everywhere. If we do not get a drouth this fall or next spring, and we must not forget there are two *ifs* in the way, we shall have a record-breaking clover season next year.

How to Sell Comb Honey under the Federal Net-weight Law and Get Pay for Every Ounce

AN old correspondent, who is also a large producer of honey, has written us for information. He says if he is compelled, under the federal law, to mark the minimum net weight on each individual section, and sell on that basis, there will necessarily be a surplusage of anywhere from $\frac{1}{8}$ to $\frac{3}{4}$ ounce of honey that he will lose on every section of his entire crop. He estimates that, if he sells his comb honey on the basis of actual minimum net weight per section, and not their actual aggregate net weight per case, he will lose \$100 on one shipment alone.

Our correspondent is laboring under a wrong impression. He, like all other producers, if he uses separators or fences, will probably have three grades, one class calling for a minimum weight per section of 12 ounces, another of 11, and another of ten. We could sell a case of 24 sections of the 12-ounce class and get no more than 12 times 24 ounces, or 18 lbs.; but that is not necessary. For his information, and for the information of every one else, we may say that the federal net-weight law, while it does require the marking of the individual packages or sections, it does not compel *selling* on that basis. It is permissible to mark the minimum weight on the carton inclosing a section. The purpose of the law is to give the consumer a chance to know approximately how much actual weight he is paying for in the package.

We find in practical experience that the

average 24-pound case of sections marked "Not less than 12 ounces net" per section will run anywhere from 12 to 18 ounces more than the actual minimum weight of 18 pounds. The producer is permitted to sell a caseful of sections at its actual weight exclusive of the case and the wood around the combs; but the weight should be marked on the end of the case. On that basis *he gets pay for every ounce of honey he sells.*

The retailer, however, will probably sell the sections at so much a piece. One customer will get just exactly 12 ounces, while another will get 12½, and still another nearly 13 ounces; but the dealer, in order to protect himself, will mark the price of his sections high enough to cover the variation. But there is nothing to prevent his selling each individual section at its actual weight. He will then be obliged to stop and figure up the price as he would that of a chunk of meat or a plate of butter that is dipped out of a crock. On a busy day this is impracticable. In nine cases out of ten he will sell by the piece; and right here the federal net-weight law, instead of being a hardship, is welcomed by the dealer and the buyer; and it ought to be welcomed by every honest producer, because he knows that his customer knows just how much he is paying for.

But there is another way by which our correspondent can protect himself, and it is used by a large number of producers and wholesalers; and that is, to sell the honey at so much per case. For instance, a 24-pound case of sections marked "minimum of 12 ounces" will bring, we will say, \$2.75 per case, or \$3.00, whatever figure he can get. A case of 11-ounce sections will bring correspondingly less; or, if he chooses, there is nothing to prevent him from selling all his comb honey at so much per case, whether it is 10, 11, or 12 ounces per section. It is the usual practice to sell the 12-ounce as "fancy," the 11 ounce as "No. 1," and the 10 ounce as "choice," each bringing a corresponding price.

As time goes on, we believe the public will appreciate the fairness of the federal net-weight law, because it will operate to the advantage of the honest producer and dealer alike. The only fellow it hits and hurts is the producer or dealer who was in the habit of selling irregular sections of all kinds of weight, and light sections at the price of a regular and first-class graded product. As it is not practicable nor necessary to mark the *actual* weight on every individual section, he is compelled to mark the minimum, and to grade by weight.

What is it—Nosema Apis, Bee Paralysis, or What?

DURING the last two months we have had complaints from a good many beekeepers, particularly in the Northwest and extreme Northwest, to the effect that a peculiar malady, something like bee paralysis, was carrying off adult bees by the thousands. They have seen traces of it other seasons, but this year it is particularly bad, ruining entire apiaries in some localities.

In some places, particularly in and about Portland, Oregon, the disease has disappeared. In other cases it seems to be as virulent as ever. Many of the symptoms are similar to those of bee paralysis, and yet just enough unlike it to make one think it is something else. A description of the malady, whatever it is, appears to tally very closely with the disease known as "*nosema apis*," or Isle of Wight disease of Great Britain.

It has been found this season in parts of Wisconsin, Minnesota, and clear along down the Mississippi Valley; but it seems to be particularly severe in and about Seattle, Washington. One of our subscribers, Mr. M. Y. Calcutt, writes:

I am enclosing you herewith a clipping from the *Seattle Times*. You will see what Prof. Trevor Kincaid has to say regarding a disease that has scourged the bees.

On the 28th of July I noticed the bees were hopping about in the grass, and were to be found in bunches on the ground with their heads together as if starving. On examining the hive I found they had plenty of stores. I then examined yard No. 2, and found like conditions existed there. I then started out to other yards, and found the same condition in all hives in this part of the county. Beesmen from other parts were soon calling on me to see if I could give them some advice as to what was the matter with their bees, and the remedy to be applied. I was sorry indeed that I could do nothing for them but to advise shaking and feeding up for new broods, as all or nearly all the brood was dead or dying. The disease seems to attack the larvae from three days old to that about the time the larva is to burst its cocoon. The cell-cappings are the same as American foul-brood cappings. Prof. Kincaid tells me that the bees' heads are full of spores, and he is convinced the disease is communicated through the flowers, which must be so, judging from the rapidity with which it has spread. I am inclined to think he underestimates the number of bees destroyed since July 28. I am fully convinced, from examination of all the hives here, and those in my yards, that fully 90 per cent of the bees have died since that date. Two-story hives do not to-day contain one good frame of bees. It looks at this writing as if no bees will be left. If shaking and feeding will not stop it, then all the bees are doomed; and, as Prof. K. says, the fruit crop for 1916 will be small indeed. I am sending samples to Washington, D. C.

Seattle, Wash., Aug. 28.

M. Y. CALCUTT.

The newspaper clipping referred to is as follows:

HONEYBEES OF NORTHWEST ARE MEETING DEATH; STRANGE MALADY, THAT IS ATTACKING NOTED ZOOLOGIST'S HIVES, IS WIPING OUT COLONIES IN SEATTLE.

Jeopardizing the entire 1916 fruit crop of the Pacific Northwest, a mysterious scourge, so far baffling to specialists, has already decimated fully fifty per cent of the bees in this state, and is threatening, unless some remedy is found, to destroy completely the bee industry in Washington.

Professor Trevor Kincaid, zoologist of the University of Washington, and one of the best-informed entomologists in the United States, has lost more than half of his own bees, and has received a number of letters from all over the state informing him that the honey-making insects are dying by the thousands.

He believes that practically half of the honey-producers in the state are already dead; and as these insects are largely instrumental in pollenizing the fruit-trees, the growers will face a serious problem next year if the ravages of the mysterious disease are not halted.

"I thought at first that the disease was bee paralysis," said Professor Kincaid; "but further investigation has convinced me that it is a complaint that is analogous to malaria or sleeping sickness in the human family. I have expectations of being able to work out a cure. It may be that the disease is being spread by humble-bees.

"Ordinarily a bee is a fierce fighter, and is well qualified to take care of itself; but since the disease has appeared among them they have become easy prey to their enemies. Yellow-jacket wasps, which ordinarily will not tackle a bee, are hovering around the hives in hundreds. They attack the bees, and the latter are unable to retaliate.

"I have been unable to find any information on this disease in the text-books, and have communicated with the Department of Agriculture. The entire Northwest is involved; and unless the disease is eradicated it is going to have a very serious effect on the fruit crop next year. This year's crop will not be affected, as most of the trees have either borne fruit or are in bud."

No one else has before mentioned that the malady has any effect on the brood. In the Seattle case we should assume that there was such a rapid decimation of bees that the brood, by reason of neglect, simply dies. It is our opinion, therefore, that, so far as the brood is concerned, it is only a case of neglected or starved brood.

Every year, for the last 25 or 30 years at least, we have seen dead and dying bees in the fields; but the number was so small as to attract very little attention. Practically every beekeeper, if he has any considerable number of colonies, has noticed the same thing; but it was not until this year that it has broken out in such a virulent form. The presumption is that the peculiar season—cold, rainy, and wet—has had something to do with it. If it is nosema apis, it seems to like a humid atmosphere, such as is found in Great Britain and in Oregon and Washington of our own country. We have never heard of nosema apis in this country, unless it was what we call bee paralysis, until this year.

We talked with Dr. E. F. Phillips, of the Department of Agriculture, about the general aspects of this malady. We asked him if he knew anything about it. "Only the symptoms, which are by no means uniform, and nothing about the cause and cure," he replied. The foul-brood inspectors of Central United States have seen much of it.

It may be reasonably assumed that Dr. Phillips will do all he can to get all the reliable information he can concerning this new disease. Possibly it is not a disease at all, but a malady due to climatic conditions.

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Some New Uses of Honey in the Home

WE are rather proud of the magnificent way in which our subscribers have responded in furnishing recipes for using honey for this special number on the use of honey in cooking. At one time it looked as though we should have to make this number about twice its usual size in order to use all of the good recipes that were sent us. However, by doing a little crowding we have succeeded in getting them in.

To the best of our knowledge none of these recipes, except as otherwise noted, have ever appeared in any other publication. Of course, some of them might have been copied from some other papers, but most of them, we believe, are original with the persons who sent them in.

It is, perhaps, proper at this point to remark that we have tested quite a number of these recipes—not all of them, to be sure, for that would be a task indeed. Perhaps it would be a little nearer the truth to say we have tested them "by proxy," the proxies being Mrs. E. R. Root, Mrs. H. H. Root, Mrs. J. T. Calvert, Mrs. Neal Kellogg, Mrs. L. W. Boyden, and Ruth Boyden. Some of the results of their work are shown on our cover and also on the interior pages of this issue. One or two recipes were voted a failure; but in the majority of instances every one who had the privilege of eating some of the cakes, pies, or cookies in question pronounced them excellent.

Honey certainly makes a great difference in a recipe, provided the recipe in question is well balanced and all proportions right. As we have mentioned many times before, the mere substitution of honey for sugar seldom results in success, for honey and sugar do not have the same physical characteristics. However, with distinctly pleasing results, honey may often be used instead of molasses or the so-called "corn syrup," without further change in the recipe.

HONEY HOT OR COLD.

We have noticed in our own home, and in the homes of many others of our acquaintances, that honey is not apt to be used as much in extremely hot weather. There are, perhaps, several reasons for this, perhaps the most important being that honey when it is warm is much thinner and a little stronger in flavor. Honey that is cold and thick certainly tastes better. Mr. Holtermann points this out in his note on page 799.

For the same reason, not many people care to eat honey on hot breakfast foods. Of course, there are exceptions; but the average person, we will say, if he uses honey at all on breakfast foods, prefer it on a cold cereal like cornflakes, etc. To take advantage of this fact, we should not be too strenuous in insisting that honey *never* be placed in a refrigerator. It should not be stored there indefinitely, that is true; but it is greatly improved if it can be placed in the ice-box for a few hours just before it is served on the table. Even hot biscuits taste better if the honey is thick and cold.

HONEY FOR BROWNING PANCAKES.

It has been suggested before, but is well worth repeating here, that a little honey stirred in with pancake batter serves an excellent purpose in permitting the cakes to be baked to a rich golden brown without danger of burning. It is not necessary to use enough honey to sweeten the cakes. Every one likes griddle-cakes better if they have the proper color, instead of being pale and white.

BUCKWHEAT HONEY FOR VINEGAR.

One of our subscribers, Mr. Chas. A. Johnson, of Battle Creek, Mich., commenting on the fact that honey vinegar is so often pale or water-white, points out that if buckwheat honey is used the color is exactly the same as that of vinegar made from apple cider.

HONEY USED IN LATHERING THE FACE PREPARATORY TO SHAVING.

The beneficial effect of honey on the skin has long been known. There have been many preparations using honey in the various creams and ointments for rubbing on the hands and face. Men who shave themselves may be surprised to learn that lather containing some honey is delightfully cool and creamy compared to the thin and quick-drying lather so often produced, even from the best of shaving-soap (advertisements of the soap in question to the contrary). We have incorporated the honey in the soap, making a very satisfactory paste or cream; but the most convenient way to use honey

when shaving is to put a small amount of honey on the end of the brush and then use whatever soap is desired, in the regular way. Put three or four drops on the end of your *wet* brush, and then use your favorite soap. You will find at once that the advertiser's "dream" has come true. The honey is soothing to the skin, and the lather remains smooth, moist, and creamy, even if it takes fifteen minutes to shave.

HONEY AS A CURE-ALL.

Soon after the announcement of this special number we received quite a good many so-called cures for such serious troubles as cancer, erysipelas, etc. We have taken the position that, before publishing the recipes for these salves, ointments, and lotions we should have the signature of at least one reputable physician with a report of his experience using the cure in question. Such salves might not do any harm, but we seriously doubt whether they would be of any benefit whatever.

A simple remedy for a cough, which we have found of especial value for small children, is a mixture of honey and common vaseline. Equal parts may be stirred together, forming a paste; and as much as a spoonful of this may be given at a time without danger of disturbing the stomach. Ordinarily half a spoonful is enough. All children like it.

The Troubles of an Editor; Quality versus Beauty only

IN our issue for Sept. 1, page 699, we have an editorial headed "Can Good Queens be Raised and Sold for 50 cts.?" We went on to state that there were times in the season, especially at the close of it, when the breeder could afford to sell his surplusage of queens at 50 cts. apiece in order to reduce stock; but we added that we did not believe that, as a regular proposition, week in and week out, he could afford to do so through the entire season, and we still think so. Two of our standard advertisers, good men, and who furnish good stock, seem to think we had them specially in mind when, as a matter of fact, we were not referring to any one. At all events, they put the shoe on just the same, and, of course, think we have been unfair.

In looking at the advertisement of one of them (the one who makes the loudest holler) we notice that he has a "surplus of young queens," heading his advertisement with the words "Special Offer."

Our editorial, as will be seen, was not criticising queen-breeders who are disposing of "surplus stock" or making "special

offers." We simply raised the question as to whether one can maintain the price of 50 cts. all through the season.

Still another party—a well-known queen-breeder of first-class golden stock, and one of the best-known men in our ranks—complains because we have given it as our opinion that many of the extra golden-yellow bees are not as good as the leather-colored stock. It seems we wrote this party, congratulating him on the excellence of his stock, because it was resistant to European foul brood. Immediately he came back at us, saying we were inconsistent in praising the thing we had condemned. We tried to explain to him that we could not afford to smother our honest opinions, right or wrong, simply because of the few extra dollars we might make in our advertising columns. Moreover, we have never declared that *all* goldens are inferior to the leather-colored stock.

In almost the same mail came a letter from a breeder of extra-yellow bees, commending us for the fearless stand we had taken in our various editorials, and saying that he expects to take GLEANINGS for the rest of his life. *He*, evidently, does not consider that we are condemning *all* goldens. The fact is, if a breeder sells good stock, golden or leather-colored, the trade will discover it and patronize him. This is shown by the fact that some breeders have advertised with us for years.

To make our stand clear, it may be well to reiterate that, although we have spoken disparagingly at times of *some* goldens, we have not condemned *all*. That is only another way of saying there are some goldens that are not only beautiful, but good workers, and some goldens that seem to resist European foul brood as readily as leather-colored Italians, and possibly better. We would gladly give the names of some of these breeders who are furnishing this kind of stock; but if we did so, this poor editor would have more trouble on his hands from the other fellow whose name was conspicuous by its absence.

If the reader cares to look over our editorials he will see that we have frequently condemned the policy of advertising five-banded bees, and furnishing only three and four banded stock. While there is such a thing as a "five-banded" or "yellow-to-the-tip" bee, it is almost impossible to make *all* the bees of a queen show up like that. The effort on the part of some to get the "yellow all over" has naturally led them to sacrifice efficiency and longevity for color. As a natural result, many of the extra-yellow bees have been markedly in-

ferior to bees bred for business, color being maintained only as a secondary consideration.

It is the *policy of breeding for one thing only, and that thing not a business qualification in our bees, that we have condemned; and we still stand on the same platform. We do not condemn beautiful bees that are also good workers, nor the breeders of them.* Some of these people have developed some very fine stock, including our advertiser who complains.

Dr. E. F. Phillips and the Editor of Gleanings at the Home of Dr. C. C. Miller, of Marengo, Ill.

DR. PHILLIPS and ourself had the pleasure of paying a very short visit at the home of Dr. C. C. Miller, on the 6th of September last. We were on our way to the field meet at Hamilton, Ill., the home of the Dadants, and stopped off one day.

There may be other beekeepers who produce honey in sections who harvest larger crops. There certainly are many such. There may be others who can produce an equal quality and possibly better; but practically all of them are using some of the methods, at least, of the sage of Marengo. Dr. Miller, in the opinion of Dr. Phillips, has evolved a system of comb-honey production that is very nearly perfect. He has no trouble about getting bees in comb-honey supers, and very little difficulty in controlling swarming. He will secure a crop of comb honey when other beekeepers get almost nothing.

The secret of his success lies in securing *a large force of bees in time for the harvest.* Said Dr. Phillips, "Too much emphasis cannot be placed on that point." His other secret is *conserving the force of bees after he gets it.* "Secret," did we say? Dr. Miller has no secrets and never did have; but he does have tricks of the trade that every producer of comb honey in the United States should know. Thousands of beekeepers who have been running for section honey have given it up in disgust. Something is wrong. They complain that they cannot get the bees into the supers; that their honey-flows are too short and intermittent; and that the swarming problem is too much for them. But Dr. Miller handles all of these problems at the ripe old age of 84, with no other help than that of his sister-in-law. In fact, he has been doing it year after year for thirty years.

At the time of our visit there was such a roar of bees about his yard that it looked as if there was a big swarm in the air—in

fact, several of them. Nay, rather it looked exactly like a wholesale case of robbing; but it was neither. An inspection of the apiary showed that large streams of bees were going into every one of his hives. We never saw such a furor of bees before in so small a yard—92 colonies, spring count. While the apiary was small, there was an immense force of bees in every hive, and on every one of them there were anywhere from two to five comb-honey supers well on to completion. The honey the bees were getting at the time was apparently from heartsease. While Dr. Miller had taken off a small crop of fine clover honey he feared that what was still in the hives might be flavored with heartsease; and heartsease does not improve a fine clover.

We had a great curiosity to see what the bees were working on. There were acres and acres of white clover in bloom. Was it not possible the bees were working on that? But there did not seem to be many bees on these blossoms; so we took a stroll all by ourself, leaving the two doctors—the M. D. and the Ph.D., to discuss the problems while we were gone. We went over the hills, through patches of woods, through barbed-wire fences galore; through cornfields; got lost, but finally got back, after a wide detour, to the home of the Millers. The women feared we were lost, and began to think seriously of sending some one after us; but, like the proverbial penny of uncertain quality, we turned up.

They were all eager to know what we had found—that is, what the bees were working on. We had to confess we did not know. There was occasionally a bee on the clover—perhaps one to every radius of 100 feet. There were quite a number of bees on sweet clover, and occasionally a bee on the heartsease—perhaps one for every radius of ten feet. Heartsease—there was lots of it just coming into bloom. It grows as a weed in the cornfields, and corn is grown extensively about the Miller apiary. While the heartsease was only just coming into bloom with only a few bees on it, it did not seem possible that such a great roar in the yard could have come from that source, and yet there was an odor of fall honey about the hives. It might have been from the asters; but the asters were negligible, for but few of them were in sight. There was some Spanish needle, but there were no bees working on it. There was considerable sweet clover, but apparently not enough to make such a showing. What, therefore, could the bees be working on? Dr. Miller began to figure—one bee for every radius of ten feet on the heartsease,

and there were many tens and tens of acres of it in the cornfields that were numerous. The bees on the white clover, on the sweet clover, and the heartsease, if they were scattered over a radius as large as $1\frac{1}{2}$ or 2 miles, might, according to Dr. Miller's figures, account for that tremendous roar of bees.

Although Dr. Miller is in the habit of taking a midday nap, he was bright and alert all the time we were there from 11 o'clock until 7 at night. We could not imagine any kid beekeeper more enthusiastic than this veteran of 84 summers. Of course, Dr. Phillips and ourself gave him some hard question. Always modest, he frequently said, "I don't know."

A striking feature of Dr. Miller's make-up is his modesty. He does not seem to know that he has discovered methods that make for success. He claims no originality, and yet he certainly *is original* in making up a combination of methods that is unique in the production of comb honey.

By the way, we forgot to mention one thing, and that is Dr. Miller's strain of leather-colored Italians. While his methods and his locality have done much to contribute to his success, careful selection of queens of his own breeding has been an important factor. No mistake about it, they are hustlers, every one of them. Those queens ought to be worth from \$10 to \$25. With those queens Dr. Miller is successfully combating European foul brood. They are not much inclined to swarm if his methods are used, and they certainly get there with the honey.

We do not know that Dr. Miller has any queens for sale; but he said, "At our ages" (referring to himself and his family), "we have more bees than we can handle. We may be compelled to cut the force down."

Dr. Miller does not know that we are giving him a free advertisement; but we suggest that some of the queen-breeders of the country get some of his stock and cross it with their own before it is too late and the genial smile of the owner is forever gone so far as this world is concerned.

But, to return. When we left Dr. Miller at the electric station to go back to Chicago, and from there on to Hamilton, there was the same smile that doesn't come off, but a look—a far-away look—as if he thought that possibly he might not see us again on this side of the river that separates us from the world beyond. We hope we shall see him every year till he is 100. If careful living will do it, he will reach the mark. Indeed, he looks as young as he did ten years ago.

Dr. C. C. Miller

STRAY STRAWS

Marengo, Ill.



GRACE ALLEN, p. 702, sometimes darkness is an advantage when introducing, since there are then no robbers about to make the bees ball the queen.

THE OUTLAW, p. 545, has surely struck on a good thing in having full frames instead of sections for cafeterias. As the honey is to be cut up into portions in either case, what advantage is there in the section?

G. M. DOOLITTLE, many thanks for telling us, p. 750, what perhaps I ought to have known, but really didn't know, that it made all the difference whether a full or an empty comb was used in spreading brood. After all, if the bees already have all the brood they can cover, will spreading be a good thing?

J. E. CRANE, you say, p. 748, that sections with bottom starter were no better attached at the bottom than those without. Does that mean that the bees gnawed down the bottom starter, that they build down well without it, or what? When I used no bottom starter many sections were not built down at all, while with them there is no failure. What makes the difference?

FOOLED again! On p. 745 I said that, although bloom was abundant, I gave up hope of anything to speak of from it. Scarcely had I written that when the bees started on a craze for gathering I never saw excelled. Clover, aster (other years aster yields nothing here), heartsease, and I don't know what all, seem running over with nectar. You never know what bees will do next. [See reference to this subject in editorials, this issue.—Ed.]

A CORRESPONDENT refers to page 553 of A B C and X Y Z, where "a frame of unsealed larvæ" is recommended to attract the bees of a swarm, and wants to know if sealed wouldn't do as well. Generally, when you take from a hive a frame containing unsealed larvæ, you will have sealed as well, and I suppose nothing could be better than a frame having all kinds. But if it is a choice between a frame having only unsealed and another having only sealed, all my observation tends toward the belief that bees have a stronger attachment to the sealed. [A. I. Root, as you will remember, used to teach and preach that a swarm favors unsealed rather than sealed brood—or, rather, he always gave directions that, in order to hold the swarm in its hive, we

should give a frame of unsealed brood. Who is right?—Ed.]

MR. EDITOR, you ask, p. 746, whether my treatment of European foul brood is not the basis of the Alexander treatment. Let me say with all the emphasis I can that I never wanted it understood that my treatment was anything but the Alexander treatment, the big principle of the whole thing being that cessation of brood-rearing would allow the bees to clean up. I merely shortened the time of treatment, and that by a stupid blunder—a change that I am sure Mr. Alexander would have made if he had lived long enough. [Yes, we know very well that you do not claim originality except in the matter of time; but we merely asked the question in order that the public, who, perhaps, had forgotten, might know the precise situation.—Ed.]

A YOUNG queen is far more profitable than an old one, because she will lay till late in fall, while "an old queen that has exhausted herself in the early part of the season will usually stop laying when the main honey-flow ceases," page 699. True as preaching. Yet the evils depicted as resulting from that old queen being left don't happen with me. I suspect it's because the queen that has exhausted herself is always superseded by the bees. At any rate I don't believe it pays for me to meddle with the superseding business unless there's some other reason for it than old age. [The conditions in a comb-honey-producing yard and a queen or bee producing yard are not the same. In the latter, breeding is forced in season and out of season by feeding. In the ordinary production of comb honey, breeding begins early in the spring and continues from the time honey begins to come in heavily. The gathered nectar often fills up the cells that would otherwise be occupied by the queen. The result is, her bodily vitality is not drained in the same way that it would be if she were given unlimited room, and forced by feeding. In the former case the bees might do their superseding soon enough. In the latter case would it not be more profitable to use young queens, especially those bred after or about the time of the main honey-flow?—Ed.]

BILATERAL multiple is the name of the latest honey-extractor, the invention of M. Etienne Jacquet. You put into the machine a single comb, or any number up to 20, pull down the cover, turn the crank for a time,

and there you are—both sides emptied without any reversing, automatic or otherwise, with no crushing of cells against wire cloth, and no danger of breaking combs out of frames. Twenty frames at a time, mind you.—*L'Apiculteur*, 60. [It is a little difficult to determine the precise principle of the extractor referred to above. If it is of the non-reversing type, the pockets arranged like the spokes of a wheel, the bottom-bars of the frames next to the shaft of the reel, or if all the frames are in the same plane, with the end-bars pointing toward the hub of the wheel, either or both have been thoroughly tested and found wanting. They have been illustrated and described in the journals. Thin honey, such as some beekeepers too often extract, can be removed from the combs on either of these two plans. But even then the combs are not cleaned. It is impossible to extract thick honey and get more than fifty per cent of it out of the combs. The only way to extract clean is to have the combs reversed so that the full strength of the centrifugal force can be applied. We went over these principles very thoroughly some fifteen or eighteen years ago, and found that a non-reversible machine, or, rather, a machine that extracts the combs without reversing, is a long way from a success.—Ed.]

ABOUT that quahking business, p. 747. The trouble with you, Mr. Editor, is that you are too up-to-date, discouraging all natural swarming, so that I am wondering whether you ever heard quahking. I have not for many years; but my recollection is this: In the evening go to a colony that contemplates sending out an after-swarm next day, and put your ear to the side of the hive. For a time you hear all sorts of gabbling, and then comes a clear tone above all others, long drawn out, followed by several others, each one shorter than its predecessor. That's *pip*ing. Immediately come one or more responses—each response a succession of short tones, the first tone as short as the last. That's *quahking*. The two may be made the same way; but do you think a cell or a barrel could account for the difference in length? [Yes, in the olden days we have heard quahking as well as piping. As we remember, there were two notes. The lighter one sounded like a tiny tin trumpet a long way off, while the other sounded like a larger trumpet closer by. While it is true one can hear both piping and quahking when a colony is about to cast a swarm, is it not probable that the piping is made by a hatched queen, and the quahking by another one in a cell as a challenge? And is it not probable that the

two sounds are made by the same organs in precisely the same way, but under different conditions? Naturally enough, the same sound inside of a wax cell would be weaker and more muffled than outside of it. Perhaps a barrel is not a fair comparison, but it would seem that the quahking would be shorter and more intermittent inside of a cell because there would be less air immediately available. We have to confess we do not know very much about this whole proposition.—Ed.]

UNITING is most easily done by the newspaper plan. Put a sheet of newspaper over one hive, and set the other over, with no chance for the upper bees to get out till they gnaw through the paper. In the same way a queen may be introduced by setting over the hive the nucleus containing the queen, with newspaper between the two stories. Sometimes you want to unite a queenless colony, A, with a nucleus, B, leaving all on the stand of the nucleus. Here's a good way: Take a single comb with adhering bees from A and give to B, making sure that the added bees are not more than half as many as B already has. Next day add another comb or two, and so on each day until all are used up. At the last leave a comb for any returning bees, giving these to B. [If this form of uniting be practiced in September it may occur during a spell of very hot weather; and then would there not be danger that the bees in the upper hive might smother for want of proper ventilation? Of course, if it were only a nucleus it might survive a boiling hot sun on a hot sultry day. When bees have access to an entrance they can control the temperature of the hive by ventilation; but when all means of access are closed, the temperature of the hive may go clear up to a point where it would kill bees and brood.]

In our locality a thermometer placed on a hot day on top of a hive-cover painted white will reach from 120 to 130 in the sun. That would mean that the temperature of a closed hive might be 110. Such a temperature would kill some brood.

Practically speaking, however, the outside temperature at the time of uniting is generally low enough so the newspaper plan will work 99 times out of 100. But even then are there not some returning bees after a hole has been made through the paper?

The other plan of uniting comb by comb would be a slow process. We much prefer uniting the bees at two different yards where the bees are operated on the out-apiary plan.—Ed.]

Grace Allen

THE DIXIE BEE

Nashville, Tenn.



At the present writing we are feeding all our increase, and looking hopefully for a sufficient fall flow to winter on. And we are not the only ones feeding. "Giving 'em a hundred pounds of sugar a day," a beeman from a neighboring county cheerfully announced last week.

Though I did not know Mrs. H. G. Acklin, may I not bring my woman's tribute of sympathetic appreciation to lay alongside the others heaped upon her memory? It always gives me a thrill of pleasure to hear of successful women—a pleasure intensified in this case by the realization that Mrs. Acklin met sorrow bravely, faced the world single-handed, raised a charming daughter, and was a lover of bees. And may I also send all my good wishes, like white doves, to the recent bride, Mrs. Howard R. Calvert? I suspect she knows that God didn't put all his poetry into rain-bows!

We tried hard to have a field meet last month; and, for that matter, we had it, after a fashion, but not a fashion of our own choosing. The weatherman chose the mode; and, though the editor wisely suggests that the weather is of less importance than what was said, still in this particular instance (even the editor will grant this) the weather was of prime importance, because of what it caused *not* to be said. Briefly, it rained—not just that one day, but all day every day for many days. We were so sure it would stop by the date set that the meeting was not postponed. It can't rain forever, we said. But it almost can, we found out, for it almost did. So on the day itself, after standing first on one foot of our indecision and then on the other, we finally decided to go, because, since it evidently *was* to rain forever, we would have to hold our meeting in the rain some time, and it might as well be now. When the last nose was counted, we found we had gathered together seven brave and faithful souls. In the light of the adjectives, it might seem more modest to say six; but as it cost a dollar and a half to take the water-spots out of a delightfully absurd pongee coat, I shall allow myself to remain solidly classified with the virtuously faithful.

It was a good meeting for all that. No formality (with seven!), but an increased friendliness, which of itself makes a perfectly good reason for holding a meeting, though nothing else be accomplished. We talked informally of such things as different ways of making increase, the advantages and disadvantages of various-sized hives, stores for winter, and this year's crop—an average in this locality of thirty to forty pounds, and the prediction that next year'll be better, which it surely will if a clover year follows a wet year.

Foul brood came in for its share of shuddering comment. Our state inspector told how somebody had imported (unknowningly, needless to say) some diseased combs into the state, and things had immediately happened in his own apiary. "He has had his own punishment," Mr. Davis remarked, after hearing the story: "but what about the woods around him?"

"That's it," Dr. Ward answered with a sigh; "what about the woods?"

And that is it, apparently. What about the woods?

It was in the dash down the road for a home-bound car that a particularly lively shower spotted(?) the pongee coat. The shower passed before the car came, the sun slipped out, and there at the last was a rainbow, the brightest and most beautiful I ever saw, with a secondary one beyond, delicate as a rainbow dream. If I had thought of it sooner I'd have tried to put it into a poem. Yet, after all, no one could really put a rainbow into a poem. And why should we try? The poem is there in the rainbow. How all its colors rhyme! A perfect poem it is, and God wrote it, with the swing of eternity in its long rhythmic lines and a divineness of beauty in every lovely deepening shade, from the rim of red on the one edge to the rim of violet on the other.

Some other day we'll have a field meeting, boiling over with beekeepers and enthusiasm, and in the meantime perhaps it would be well for us to act on one of the suggestions of that wet windy meeting on the bungalow porch, and make the weatherman an honorary member of the association: then in the future he may show more tender consideration for the brand of weather he provides for the beekeepers of Tennessee.

BEEKEEPING IN CALIFORNIA

P. C. Chadwick, Redlands, Cal.



A headline reads, "Wintering bees on peppermint candy." I believe I could winter on that myself.

Keeping comb honey too warm will give it the appearance of being "water-capped," due to the fact that when the honey becomes too warm it runs against the cappings.

Mr. Scholl, will you kindly explain the difference between bulk comb honey and chunk honey? I am a little hazy on that distinction, and I presume there are others the same way.

I have just received word that a new beekeeper has arrived in the home of Mr. and Mrs. Wesley Foster. I have extended my most hearty congratulations, wishing all the blessings attending such an occurrence.

I read, page 686, Aug. 15. "The bee on the left was killed by a sting in the second joint of the front leg." It must have been a black bee. Colored folks are said to be very susceptible to injuries on their shins.

I saw an apiary last week that would burn "body and breeches" if fire ever got started in it. Weeds and grass were knee high, and as dry as tinder all around the hives and honey-house. If it should burn, the owner would have only himself to blame.

From the point of knowledge of the bee, San Bernardino County lost one of its foremost beekeepers on the 26th of this month in the death of Mr. Leroy Straight. He had been in poor health for many years, and had been failing rapidly for nearly a year. He died at the age of 63 years. His ability in successfully handling bees was excelled by few beekeepers of the state.

The California State Commission of Horticulture has issued a book of 500 pages, entitled "Injurious and Beneficial Insects." I am indebted to Prof. A. J. Cook, who heads the department, for a copy of the same. There are some data on enemies of the sage and other honey-bearing plants; but our old enemy the sage-worm, so called, seems to have been missed in the shuffle. This enemy is a worm of not more than $\frac{1}{4}$ inch in length, possibly more.

The egg that produces it is laid at the base of the button, in what has the appearance of being a sting in the button. It is at least a puncture of some kind for the depositing of the egg. The egg hatches, and the worm cuts its way around in the base of the button, destroying much of the bloom before it has time to open.

One of the most sudden and freakish storms burst upon us on the 26th of August. The morning was clear and bright. By noon the sky was fast becoming clouded. At one o'clock a dust storm broke all over the southern part of the state, and, to use a common expression, it was "some dusty." The dust was followed closely by rain in many sections, some places merely a sprinkle, at others a heavy downpour. The heat since has been very oppressive, the usual cool nights having disappeared for the time being.

Last week I was passing under a pepper-tree which was in bloom, and noticed many dead bees upon the walk and ground. I counted 19 on a space 4 feet wide and 12 feet long. At the same rate there must have been at least 200 dead bees under this one tree. I found upon further investigation that other trees had a like number under them. But the cause I cannot locate. Their bodies were distended much as in poisoning. Yet I have never known of bees having been poisoned by pepper bloom before. It is a mystery to me.

Mr. Doolittle, page 573, July 15, says "Cheaply reared queens are detrimental," and also, "As long as consumers insist on paying a low price for their stock, and queen-breeders advertise queens at \$50 a hundred, so long must they be content with the results of queens reared without proper care." Herein lies food for thought. Grinding out quantities of queens without proper individual care and examination is not conducive to the best interests of the consuming public. I have had sufficient experience with queen-rearing to cause me to believe that producing great quantities of queens is the only way that cheap queens can be turned out with profit, but the results are very much as Mr. Doolittle has said.

There is some honey being exported from the coast—the first for nearly a year. The

crop in general throughout the West is light. The demand for honey from some sections of the West and South is very good, being mostly orders from beekeepers who have failed to produce enough for their trade. Lots ranging from a few cases to car lots are being filled. Orders from as far east as Tennessee and as far north as Washington are being received. Much of the western crop will likely be absorbed in export and western orders, leaving the East largely to their own market. With these conditions a steady market should be maintained, and a stronger feeling exist. Why should prices rule lower when the great West seems able to dispose of its holdings without invading the East materially?

An editorial, page 699, Sept. 1, reads in part: "If a queen is a year or two old she will let up on her egg-laying soon after the harvest." There is nothing I know of that would be of more worth to the beekeepers of this section than to impress this one fact on their minds. Our long dry summers make it imperative that we have a queen at the head of the colony that will force breeding matters in the face of adverse conditions, and give us as liberal a supply of young bees for wintering as possible. This can be done only with young queens, and to reach the limit of success every colony should be requeened immediately after the close of the honey-flow. Plenty of young bees and an abundance of stores are the best safeguards against spring dwindling. I am glad the editor said "a year or two" old. My way of putting it would be to say a year old, for that would cover it quite fully.

A certain orange-distributing company is sending out a series of educational folders relative to educating the public as to how best to prepare and serve oranges daintily. On one of these is the startling statement that people eat with their eyes. Literally speaking, it is a startling statement, but figuratively it is correct. The more dainty, clean, and tasty an article looks, the quicker it sells. This is especially true in the honey business. Last summer, while in the East, I visited a grocery owned by an old schoolmate. On the counter was a case of honey that was certainly the most unappetizing of any I had ever seen, being not only black but ill shaped and dauby. I asked my friend if he sold any great amount of it. He said no; there did not seem to be much demand for honey. I did not express my thoughts, but nevertheless it occurred to me that, had he had

some in stock which looked a little more attractive, he would have been able to increase his sales, for a buyer used to good honey would not carry home the stuff he was trying to sell. I doubt if you could fool a blind man the second time on such an article. Fancy goods bring fancy prices. The world is strong on looks, regardless of what it may be.

On page 701, Sept. 1, I seem to be much in the position of the lost parrot. Dr. Miller and the editor both take a whack at me in the same paragraph, so I must exclaim as did the parrot, which had been the property of the matron of a large depot. His cage had long been hung near the exit gate, and eager travelers had been told so many times by the guards, "One at a time, gentlemen, one at a time," that the parrot thoroughly learned the sentence. One day he got out of his cage and into a park near by, where the bluejays were making life miserable for him when he was found. But for all, he was loudly shouting, as an occasional feather was plucked from him, "One at a time, gentlemen, one at a time."

There seems to be a disposition shown to "knock" yellow bees, and I am placed in the position of lawyer for the defense. To that end I will state that individual cases should not condemn the entire race. The fact that breeding for color has to some extent decreased the efficiency of the goldens, while two or three well-known strains of three-banders have been widely distributed for their gathering qualities, is no sign that the golden strain could not have reached just as high an efficiency had they been bred for the same quality and not for color alone. I have introduced three-banded queens from some of the best-known breeders in the country that were actually not worth the time it took to introduce them. The same has been true with the goldens; but the difference between the two has not been so great as one would be led to believe. Wishing to secure the very best golden strain in the country I recently wrote several breeders as to the base of their stock, whether it contained Cyprian blood or was originally Italian. One breeder wrote me that the base of his stock was from three of the best-known breeders of queens in the country, and gave me their names. His first aim he said was working quality; second, gentleness; then color. With a golden strain bred for these characteristics I see no reason why there cannot be a strain of goldens equal to or perhaps superior to any three bands obtainable.

NOTES FROM CANADA

J. L. Byer, Markham, Ontario



As mentioned in my September Notes, clover is very rank, and gives promise of being abundant for next year; so, after all, the wet weather has perhaps been a benefit in one way at least. Reports were circulated last spring that, owing to the war, alsike would not have a market at all; but as any seed harvested this year is bringing around \$8.00 a bushel as it comes from the machine, likely many acres will now be left for seed which otherwise would have been plowed under this fall.

On page 701, Sept. 1, Dr. Miller speaks of his bees differing from mine in that they have been very strong all through the wet season—a slight misunderstanding, I suspect, as I referred to the fact that, with so many old bees carried over the winter, during the early cold wet weather they died off rapidly. For the past two months we have had rain by the tons day after day, with hardly a let-up, and at present our colonies are abnormally strong—in fact, one would wonder where all the bees are going to go when supers are all taken off.

September 10.—Beautiful summer-like weather, and yet there are hundreds of acres of grain still not cut, and, judging by present conditions, very much of this grain will be a total loss. All records in regard to precipitation have been broken for these parts; and even if we have ten days or more fair weather, the ground is so saturated that in many places it will be impossible for horses or machinery to get on the land to garner the spoiling crops. The fine weather came too late for buckwheat in so far as a crop of honey is concerned. It yielded well during the few fair days we had; and in our own case, at least, we shall have more than enough of this honey to pay for any feeding required. That is something to be thankful for anyway, when the high price of sugar is concerned.

With September here again, once more the question of aster stores looms up. While there is nothing doing here in York Co. among the bees, the apiary up north is again storing aster honey in the supers, and also plugging the brood-nests solid. It is coming in earlier than last year, and

the yield seems to be more abundant also. In addition to the asters, the goldenrod is also yielding, while last year the latter plant yielded little if any honey. I hardly know whether to be glad or sorry for this late fall flow again, and I think it will take me till next spring to decide the question. One thing seems sure at present; and that is, that the bees up there will go into winter quarters again solid on these questionable stores; for although I intend to send up sugar and feed wherever it can be done, judging by last fall's experience the bees will take little sugar syrup if weather is fine for a few days yet.

Regarding the matter of queens quaking or piping, perhaps I have been at fault in not distinguishing the difference (page 631, Aug. 1); but I am not a musician, and so am unable to count the length of the notes properly. I have generally applied the first term to queens in cell yet, and the latter to those loose in the hive. But once more I must express surprise that so good authorities as we have mentioned have not heard the queens calling except on comb, while it is such a common occurrence here. Just a few days ago I placed a queen in each coat pocket, one on each side, intending to go to an outyard. I was helping Mrs. Byer move some furniture, when all at once both queens started in "conversation." For the moment I had to look where the noise was coming from, when I happened to think of the queens in my pocket. Mrs. Byer remarked, "They have been squawking all the forenoon while lying on the sideboard." Perhaps the term "squawking" will cover all included in the two usual terms; anyway, we often hear queens thus passing the time when we get them through the mails.

Reports of market conditions in last issue's editorials have been read with interest. Here on this side of the line, where war conditions would necessarily seem to affect us worse than residents of Uncle Sam's domains, we beekeepers have had a genuine surprise—at least one of them has had, anyway. While we expected slow sales at somewhat lower prices than usual, owing to a combination of circumstances, we are finding the demand extremely keen for good honey. Vegetables and fruit have been quite cheap; but honey is selling like the proverbial "hot cakes." We cannot thank

Continued on next page.

BEEKEEPING AMONG THE ROCKIES

Wesley Foster, Boulder, Colorado.



Our honey-flow in eastern Colorado did not last into September as was hoped. In a very few restricted districts a two-case crop of comb honey was secured; but the average for eastern Colorado will not be one case. Western

Colorado conditions are somewhat better, but a normal crop has not been secured. Grand Valley from Glenwood Springs to Fruita reports a very good late flow lasting into September. Some will secure a yield of two cases of comb honey. A few cars of comb honey have been shipped, and within one month very little comb honey will be left in the state. The indications are that the local trade will be without comb honey on account of better prices being secured in the East. A number of cars have been sold at more than \$3.00 a case for the two first grades, and local shipments have brought from \$3.25 to \$3.50 a case. The comb-honey producer who can hold his honey for the local trade will be assured of good prices later in the season.

The Arkansas Valley, from Canon City to the state line, has had the poorest crop on record for the whole district. Ten to fifteen pounds of extracted honey is certainly a very unsatisfactory return, and some producers will not get that much.

THE WEATHER.

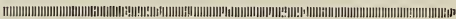
Such a season as we have had this year is very unusual. A deficiency of about 300 degrees for the summer months, and a precipitation of three inches above normal, did not help the beemen. The short snowfall of last winter was compensated by the heavy summer precipitation. In fact, the weather was so cool that the snow on the ranges, though very scarce, did not melt very appreciably. Sweet clover of the new growth has come up well, and we should have an abundance next year. We have not had a favorable growing season for farm crops, and the nights were so cool that it was with difficulty that the bees built combs. The outsides of the supers were rarely finished, and much foundation was chewed up.

About a week was all the summer we had, and very few real honey days came. The foothills seemed to hold great stores of cool weather. There was not any district in northern Colorado within fifteen miles of the foothills that made more than a case of comb honey to the colony. But further out from the mountains the days were very much warmer, and bees did somewhat better.

THE MARKET.

The demand for comb honey has been very brisk so far; and as soon as the buyers find out how short the crop is, the price will go up more. Boulder County will not produce more than three or four cases of comb honey. In past good seasons as many as thirteen cars have been shipped out. The local market this year will use (if it can get it) between one and two cars of comb honey. Idaho honey has brought from \$2.50 to \$3.00 a case according to the grade, and close to \$3.00 has been paid for honey in western Colorado where the freight rate is about twenty cents a case more to the East than the Colorado common-point rate.

Those flower pictures shown in my article on p. 619, Aug. 1, were all taken outdoors. The camera was taken to the flowers, and not the flowers to the camera. In this way a more natural effect is produced, although clearness of detail is lost, and a satisfactory background is not always possible. The pleasure of flower photography is increased when one tries to catch bees in the act of gathering pollen or sipping nectar. Several days each year can pleasurably and profitably be spent by the beekeeper in investigating the sources of pollen and nectar, and photographing the bees at work.



Continued from preceding page.

our wholesale friends for this state of affairs, as they have done nothing to help us, and have in some cases, at least, tried hard to bear the market. Some sold quite early at a figure considerably lower than advised by the committee; but I expect by this time they will know that the sacrifice was entirely unnecessary. At any rate, the local demand in our own community was never so good, and not a word is said against prices asked. The west market is hardly started yet, as the people are too busy harvesting their great crop to think of buying honey; but there is no doubt that they will be heard from later on, and I now believe that every pound of good honey produced in Ontario this year will find a market at a good fair price, all things considered.

As to the dark-honey market, I know nothing of what we may expect; but anyway the crop of buckwheat is very light, so there should be no trouble in getting rid of it at a fair figure.

CONVERSATIONS WITH DOOLITTLE

At Borodino, New York.



HIVE-MAKING.

"I am thinking of making my own hives the coming fall and winter. I am quite used to carpenter work, and think I can save quite a little in making my own hives. Can you give me a few pointers in the matter of hive-making?"

The first thing that a beginner, or those of small experience in keeping bees, should learn is that hives cannot be thrown together in a haphazard way, even where the material is purchased from a manufacturer of beekeeping supplies. Few things, including slings, are more provoking or try the temper more than a set of hives which vary in size, or which have parts that are ill-fitting or poorly made. The first thing our questioner should do is to make a careful study of hives to find out just what he wants. If he proposes to produce extracted honey his hives may be somewhat different from a design suitable for producing section honey, as the accuracy required for producing fancy comb honey is not necessary when producing the extracted article. But with hives for extracted honey, every piece should be cut accurately from well-seasoned lumber without the variation of even a sixteenth of an inch. And for real fancy comb honey, even a difference of that much would not answer in a season with a profuse flow of nectar.

Then a form is needed for putting up the hives, frames, sections, etc., so that every part will come out square and fit accurately with no loose joints or leaky roofs. All should be made perfectly square—not even a trifle diamond-shaped. Frames even just a little out of true should not be tolerated, as the bees may stick one end to the end of the hive or to another frame, and at the other end build a bit of comb between, thus making things anything but agreeable when the frames need to be handled.

Be sure that the space between the top of the frames and the honey-board or cover is just right and will stay so. If the top-bars are too light they may sag when the combs are filled full of honey, as is often the case in a good season, thus making the space in the center $\frac{1}{2}$ to $\frac{5}{8}$ inch, while it is only $\frac{1}{4}$ at the ends. Under these circumstances this greater space will be filled in with comb and honey, disgusting even the "slipshod" fellow.

See that just the right space is given at the ends of the frames; for if too much is given, combs will be built between the ends

of the frames and the hive; and if too little, the bees will fill it up with propolis. The same applies to the space underneath.

For these reasons only well-seasoned lumber should be used, and that of a kind that is not subject to much shrinking and swelling. Pine is probably the best of any, though a good quality of hemlock will withstand shrinking nearly if not quite as well. It is harder to work, however, and is more liable to check and split during very dry weather. I once visited an apiary in which the hives were made of basswood, the apiarist thinking that, if such hives were kept well painted, they would be as good as any made of the higher-priced lumbers. But when I came to look over these bees the brood-chambers had shrunk so as to let many of the frames rest on the bottom-board, and the bottom-bars were glued fast so that it was almost impossible to manipulate the frames at all.

Not only should the frames and brood-chambers *be* and *stay* of the right size, but they should be so arranged as to be spaced exactly the right distance apart. I remember looking over one apiary where the frames were all the way from 1 3-16 inches to two inches apart from center to center, this making the combs so that they could not be interchanged after the bees had filled them with honey during a flow of nectar. After using different bee-spaces I still insist on having the combs $1\frac{1}{2}$ inches apart from center to center. Many advocate from 1 5-16 to $1\frac{3}{8}$; but from a series of years, covering all kinds of weather, my best results have come from the $1\frac{1}{2}$ spacing.

The accuracy needful in making hives is much more exacting for the supers where sections are used in securing comb honey in marketable shape. A variation of a sixteenth of an inch cannot be tolerated with sections. Suppose our super holds ten rows of sections, as many of the supers now in use do, and we find when the sections are put together they are a thirty-second of an inch over; then we shall be in trouble because they will not go into the super. Again, if not quite large enough, or each of them the same part of an inch too small, we have a space to be filled with propolis, very much at the expense of the appearance of the sections when ready for market. The accuracy necessary for *supers* for *sections* is so important as to be beyond any profit in the making by any carpenter, no matter how skillful he is in the use of tools.

GENERAL CORRESPONDENCE

A SONG OF HONEY

BY GRACE ALLEN

We find among the merry songs of eatables that please,
Full many a lay of curds and whey, of apple pie and cheese—
Of luscious figs and purple grapes, and apples round and red,
Of pies with plums for grasping thumbs: but after all is said,
Is anything better than honey, fragrant, sweet, and sunny,
Gathered when days are warm and bright by a hundred thousand bees?
Is there anything all your money can buy that is better than honey,
With the scent of the glowing hearts of flowers and a hint of a woodsey breeze?

Now some may sing of snow-white bread, but brown's the bread for me—
Coarse graham flour, and baked an hour, the crust so rich to see;
A taste like nuts in autumn when the leaves are gold and red;
Then bring sweet milk, and honey sweet, for, after all is said,
Is anything better than honey, fragrant, sweet, and sunny,
Borne by a thousand silken wings through a million laughing beams?
Is there anything all your money can buy that is better than honey,
With every drop like the taste of food we dreamed in a childhood dream?

Let other rhymsters all the joys of jolly dumplings sing:
No ballad I, of salad, pie, or pudding-sauce shall bring;
But through my days I'll sing the praise of crumbly graham bread
With creamy milk and clover honey; for, after all is said,
Is anything better than honey, fragrant, sweet, and sunny,
Made by a magic spell and the charm of June's bewitchingest ways?
Is there anything all your money can buy that is better than honey,
The autumn's precious heritage of summer's fairest days?

THE MINERAL CONSTITUENTS OF HONEY

BY J. A. HEBERLE, B. S.

Condensed from an article by Dr. Fehلمان in the Schweizerische Bienenzeitung

To-day, as in old times, honey as a popular remedy is esteemed by old and young. Less valued and too little known is honey as an article of food. As such, for easy assimilation and savor, it stands at the head. We may assume that it was also one of the early foods of mankind, since in the Old Testament the promised land is spoken of as flowing with milk and honey, implying that the best of food was there in abundance.

Pliny, 2000 years ago, called honey the sweetest and most wholesome of juices. "There is no pleasanter or better remedy to save mortals from deadly evils." The ignorance of the general public in regard to honey as food is astonishing. Just as water goes direct into the blood, so does honey, leaving no residue. It is assimilated at once, and changed to energy. For food it is far superior to sugar, which is to-day highly esteemed as food among the sweets.

Cane sugar in the stomach, through the gastric juice, must be first inverted—changed to that form of sugar of which honey is principally composed. Honey contains only a small amount of cane sugar. The fact that honey is in the form in which it can be at once assimilated without taxing the digestive power is of great importance. The need of sugar by our body is, as a rule, much greater than is commonly supposed.

The starch we take in our food must first be changed by our digestive apparatus into dextrose and then into sugar—not cane sugar, but dextrose, the principal constituent of honey. From this one fact we might call the sugar in honey physiological sugar. This saving in the digestive power, when we eat honey, is due to the fact that the bees, when they gather nectar, which for the most part is cane sugar, change it to fruit sugar. On account of the importance of invert sugar to our bodies we must con-

clude that honey ought to be consumed in much greater quantity than has been done heretofore.

Besides the sugar in the form in which it is assimilated without any work from our digestive apparatus (and this constitutes the bulk of honey) there is also some albumen in it, in soluble form, readily assimilated. The amount of albumen varies greatly, according to Dr. Fehlmann, whose analysis showed honey from buckwheat and heather is rich in albumen.

Dr. Langer Graz has shown that the albumen in honey reacted as of animal origin. Further investigations will show whether there is any albumen present in nectar; and, if present, whether it is for the same blossoms a somewhat constant quantity; also whether the albumen in honey has only undergone a change, a transformation, or whether the bees add it to the honey during the process of inversion.

MINERAL MATTER IN HONEY.

Besides sugar and albumen in a form to be assimilated, honey contains inorganic elements. The amounts are small, but, notwithstanding this, are very important. Some might think it doubtful that mineral matter could be present in honey, since it is perfectly soluble in water. If honey is burned (oxydized), a residue of a dirty-green color remains that cannot be further destroyed. It represents the inorganic elements contained in the honey. The greenish color is due to the manganese.

IMPORTANCE OF MINERAL MATTER IN OUR FOOD.

The following experiment may be accepted as proof of the necessity of mineral matter for our bodies. If an animal is fed on albumen, fat, and carbohydrates, from which all inorganic elements have been removed, the animal will soon become uneasy, lose appetite, and finally it will get cramps, grow weaker and weaker, and, if the experiment is continued, will die. This above plainly enough that inorganic elements are for the animal body a necessity. Other experiments seem to show that the body endures complete abstinence of food better than the lack of inorganic constituents in the food. The inorganic elements are an important constituent part in the organs and fluids of the body, and for its well being must be present in sufficient quantity. A superabundance seems to do no harm.

INORGANIC ELEMENTS PRESENT IN HONEY.

The animal body requires for its well being the following inorganic elements: Phosphorus, P.; iron, Fe.; calcium, Ca.; magnesium, Mg.; chlorine, Ch.; sodium, Na.;

potassium, K.; sulphur, S.; manganese, Mn.; and silicon, Si. As to the importance of manganese and silicon, opinions differ; but both of these elements are present in the ash of the honey. Until recently the inorganic parts in honey had received but little attention. Some are of the opinion that the ground on which the plant grows would influence the amount of inorganic elements in the nectar; for instance, that land with much iron would produce nectar or honey with much iron content. Others hold that certain plants have a special affinity for some of the inorganic elements, and will take these up while they partly or entirely neglect others. We know that the ash of the tobacco-plant contains lithium, Li.; and the ash of the grapevine boron, B.

The above enumerated inorganic elements that the animal body requires *are all found in the ashes of honey of various origin*. The only exception is silicon. Dr. Fehlmann explains that he could with the microscope prove the presence of silicon particles in some of the honey, so it may be that silicon may be present as a mechanical impurity, not an integral part.

THE INORGANIC ELEMENTS PRESENT IN ALL HONEY.

Qualitatively the honey from various parts and various plants showed no difference regarding the mineral constituents; but quantitatively they showed considerable variation. Honey from the Alps showed five times as much ash as honey from buckwheat, while honey from the Black Forest from the fir called *Waldhonig*, a honey-dew honey of vegetable origin, showed even ten times as much ash as buckwheat honey.

It is not known how much of the inorganic elements the human body needs; but a part at least may be supplied by eating honey, which contains these elements in a *readily assimilable* form, and this is very important since only the assimilable forms of the inorganic substances may benefit the body.

IRON.

It is generally known that iron is very important to the human body. It is an important constituent of the red blood corpuscles. Chlorosis is a sign that the body is suffering from a lack of iron. For such persons honey is a very valuable medicine. Why not in such cases eat honey regularly, which supplies the iron in the most assimilable form, instead of artificial iron preparations? Besides iron, manganese seems also to influence favorably the building of blood.

PHOSPHORUS.

Phosphoric acid with calcium is the prin-

incipal constituent of the skeleton, but is also found in the brain and nerves. It is often prescribed in chlorosis and for convalescent persons, especially in preparations which are closely related to the form in which it is present in the brain, as ovalecthin, phytin, glycerin phosphates, etc.

CALCIUM.

Calcium is an important part of the skeleton and teeth, but is also found in the soft tissues of the body, and is probably a necessary part in the protoplasm of most cells. It is continually exchanged, and therefore an indispensable part of our food. Calcium and potassium seem also to influence the work of the heart.

This surely ought to suffice to show the eminent value of honey as food. Sugar, although a valuable food, has no trace of inorganic matter. It consists of carbon, hydrogen, and oxygen only. Considering the excellent qualities of honey, and its moderate price, it should be used far more extensively. It should be on the table instead of syrup, molasses, etc. It should be eaten daily by everybody in small quantities, especially by those with an impaired digestion, convalescent persons, those suffering from anæmia and chlorosis. Honey is also beneficial to children and aged persons.

HONEY IN REFRIGERATORS

BY R. F. HOLTERMANN

On page 659, Aug. 15, Mr. Louis H. Scholl, and then on page 698, Sept. 1, the editor and Dr. Miller, have something to say about putting honey in the ice-box. I should like to add a little to the discussion.

For years I have said that if one wants to get the best flavor out of honey he should eat it cold. Whenever we have been anxious to create a good impression of our honey I have made a point to have it eaten cold.

One who is in doubt can try this experiment. Warm the honey, and eat it that way; then try it just taken out of the ice-box. In my estimation one has a very peculiar taste who prefers the hot honey. I rarely come across the consumer, in selling honey, but I advise eating it cold.

GRANULATION.

It is the variation in temperature as well as other things that causes granulation. Variation in temperature causes expansion and contraction of the honey; and the movement of the particles tends to granulation (this with me is theory based on speculation from observations and reasoning). Honey keeps liquid longer when the temperature is fairly high; but honey on ice, or kept in the cold, say a freezing temperature, does not granulate rapidly; and varying temperatures with downward dips is probably the most favorable condition for granulation. My advice is, eat honey just out of the ice-box.

Brantford, Canada.

WHY USE HONEY IN COOKING

BY B. KEEP

The great benefits to be gained by the more general use of honey in cooking, more particularly in baking, are not as well known as they should be. Not many cooks possess originality; but once a trial is made in using honey, it would seem that the very great advantages of it in any sort of cake, cookies, crullers, and some kinds of brown bread, should induce further trials.

Where cake is intended to be dry and crisp, no honey should be used, as it confers a tendency to become and to keep moist, and it may be depended on for this effect. Same baked stuff is naturally rather dry and crumbly, and is not "real good" if it is otherwise; but by adding honey this crumbliness is much abated without injuring

other characteristic qualities. This applies to corn bread and corn or hominy muffins, molasses cake, etc.

Certain cakes are notably good only when "fresh;" and usually whatever is not consumed at once is wasted. The freshness of such cake can be retained for a day or two longer by adding honey to the ingredients while mixing.

Light honey does not impart any appreciable flavor, so that it can be added in proper measure to almost any recipe where a moist keeping quality is desired, without making any other change, excepting, perchance, to use a little more flour. An excessive addition would be useless and wasteful, and might impart some flavor.

The ordinary recipes produce about an average-sized cake or batch; so it may be safely said, use a cooking spoonful of honey for the ordinary recipe, and more or less in special cases.

There are recipes for honey cakes where the honey is intended to give a flavor. In such cases the honey must have a rather strong flavor, and is used in much larger quantity.

On account of chronic conditions many persons cannot indulge in ordinary sweets. In such cases honey may often be substituted, whereby many things may be eaten without the usual unpleasant effects, and

many new combinations may be discovered and enjoyed. Honey on nice ripe strawberries makes a fine combination. Sliced banana with honey is very tasty, and makes a satisfying dessert after a spare meal. Thoroughly ripe currants with honey, crushed in the individual dish by means of a fork, goes very nicely with roast meat. Boiled rice (plain), with a little butter added after the cooking is finished, and honey on the top when served, makes a very acceptable and easily digested evening meal or dessert. In fact, there is no end to the use for honey if one will look about a bit.

Lyndhurst, N. J.

THE BLENDING VALUE OF HONEY IN COOKING

BY RACHEL F. DAHLGREN

Honey and milk (or, still better, honey and cream) cooked or uncooked is an ideal combination. Honey may, therefore, be used to advantage for sweetening ice-creams, gelatine creams, and such delicate blanc-manges as are made with rennet and Irish moss.

Honey combines particularly well with apples, oranges, bananas, peaches, and dried fruits. Cakes made with honey should be allowed to "ripen" for a day or two at least. Honey fruit cakes, hermits, and the like, are better at the end of a fortnight.

Steamed fruit puddings gain greatly in flavor when made with honey instead of molasses. The use of graham or whole-wheat flour in such puddings is recommended.

Bitter almonds, orange, lemon, and fruit

flavors generally, blend well with honey, as do also anise, coriander, and other spicy seeds used in cooking.

The small sour wild plums common in many parts of the country make a delicious sweetmeat when preserved in honey. Cook with a very little water until they burst, then remove the stones, add 2 scant cups of honey to 3 cups of fruit, and simmer gently for 20 minutes.

In sweetening delicate custards, cake fillings, etc., with honey, it is best to add the latter immediately before removing them from the fire. Finally, fresh comb honey is the most exquisite food product known to nature; and with fresh brown biscuit, butter, and new milk, it furnishes a meal fit for the gods.

Redding, Ct.

HOW I USE HONEY

BY DR. C. C. MILLER

In lieu of breakfast each morning I have a bowl of weak postum, with cream and honey, and a little oatmeal. I rarely eat the oatmeal—just drink off the liquid. It takes about $1\frac{1}{2}$ ounces of honey, and that amount I've taken every morning for years. I don't take it because I like honey in drink better than sugar. I don't take it because I'm a beekeeper and want to help the honey-market. I take it simply and solely because I want to live as long as I can, and be as well as I can while I do live. And I think it makes a difference worth considering whether I put upon my digestive system the burden of inverting so much cane sugar, or giving it honey which contains sugar ready for direct assimilation.

An ounce and a half a day seems a mere trifle; but let us figure a little upon it. Multiplying by 365 it gives us 547 ounces, or a little more than 34 pounds for a year's supply. Now suppose each of the hundred million of people in the country were to use the same amount. It would take three billion four hundred million (3,400,000,000) pounds. That's no trifle, is it? At 10 cents a pound it would come to \$340,000,000. Dr. Phillips says the average annual crop of honey in the United States amounts to at least \$20,000,000. That would have to be multiplied by 17 to make it \$340,000,000. Plainly, if every one should go on consuming $1\frac{1}{2}$ ounces of honey daily, beekeepers



Characteristic view of a Dutch dining-room. Notice that honey in three different forms is shown on the table. Sent by Hans Matthes, Breukelen, Nederland.

would have to increase their output, if not 17 times, at least 10 times.

It would be worth something to increase the demand for honey; but it would be worth a great deal more in the way of the health of the nation if that $1\frac{1}{2}$ ounces of honey could replace a like amount of the something like 4 ounces of sugar consumed daily.

I'm not limited to an ounce and a half for my daily ration. I may use twice as much in the rest of the day, or I may use very little. But I know nothing very definite about the rest of the day, while I do know that $1\frac{1}{2}$ ounces has been my regular morning allowance for years.

I'm not posing as a heavy consumer of honey. I'm not a heavy consumer of any kind of food. At 84, with very little muscular activity, it doesn't take much fuel to stoke the furnace. If I should eat as much as the average, I shouldn't expect to live many days. If I were in young or middle life, with average muscular activity, I hardly think a quarter of a pound of honey daily would be enough. The point I am trying to make is that, if we could by some means get every one to use just a little honey daily, it would make a big difference in the honey-market, and a more important difference in the health of the people.

Marengo, Ill.

A GOOD PROOF OF THE FOOD VALUE OF HONEY

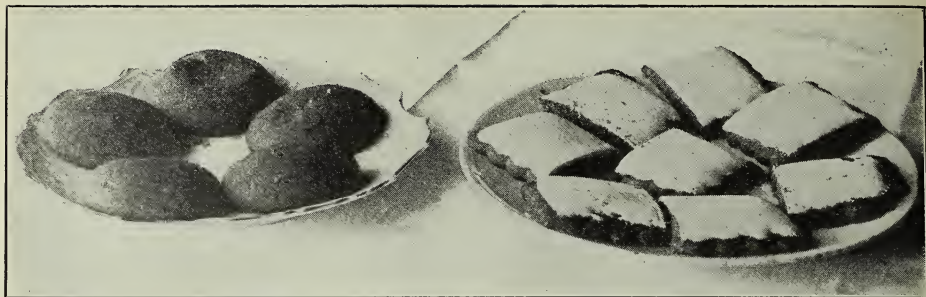
BY RALEIGH THOMSON

I want to give Mr. Chadwick something to dream about. He says that honey is a luxury, always has been, and always will be. Now I think he is badly mistaken. If honey is a luxury so are butter, eggs, cheese, and many other things that are called a necessity, while honey sells for less than either. Honey is about one price the year round. We sell our honey at 15 cts. for comb and extracted, and we get from 15 to 40 cents for our eggs, and from 20 cts. to 35 cts. for our butter fat, and cheese runs from 20 cts. to 30 cts. When a child

asks for something to eat I ask him if he wants bread and butter or bread and honey. Nine out of ten will say honey, and it will not hurt them, either. We have raised six children, and they have all eaten honey. We average one pound per day, and have used it this way for 20 years. The boy weighs 180 lbs., and the five girls will reach the 140 mark each, and we are of a family of small people at that.

Twelve and one-half cents for comb and 5 cts. for extracted honey is not enough.

Underwood, Ind.



The large baking companies use carloads of honey in the manufacture of their cakes and cookies. The frosted and unfrosted honey jumbles may be obtained at almost any grocery.

HONEY RECIPES USED IN COOKING

A Collection of New Recipes for Wholesome and Delicious Dishes as Prepared and Used by Our Readers

HONEY FRITTERS.

One cup sour milk with soda or sweet milk and baking-powder; 2 eggs; $\frac{1}{2}$ cup of honey, extracted; one scant tablespoonful of lard; one scant teaspoonful of salt; flour for stiff batter; fry in deep fat, dipping with teaspoon. Serve with extracted honey, slightly warm.

HONEY TARTS.

Make rich pie crust; cut out the center of two rounds; cut with biscuit-cutter; place one, without cutting, on the bottom; bake light brown; fill with the following: One cup honey, extracted; $\frac{1}{2}$ cup of butter; one whole egg; extract of lemon, or juice of one. Fill just before using, and sprinkle with nuts or whipped cream. This is fine for lunch.

HONEY SHORTCAKE.

One quart flour, 2 teaspoonfuls baking-powder; $\frac{1}{4}$ teaspoonful of soda; heaping tablespoonful of lard; a little butter. Mix soft with sour milk. Bake in a square cake-tin. Split, and fill with the following: One pint of cream, whipped with a little powdered sugar; one cup honey; white of egg; add a lit-

tle lemon juice; whip lightly and spread on the cake, spreading first the honey whip, then cream, heaping the cream on top; after first spreading the honey whip, nuts may also be used if liked, and you can omit the lemon, or use with fruit. Tart fruit is best.

FILLING FOR CAKE.

The following is good for cake-filling, and makes nice sandwiches, or may be used as sauce for pudding. It is also fine by leaving out lemon and egg for hot cakes, waffles, or toast softened with little milk or cream.

One heaping tablespoonful of butter; one teaspoonful of lemon juice; white of one egg; one cup honey extracted. Beat the egg very light; add butter; add honey; beat again; then lemon last. Beat hard as you add each ingredient.

HONEY-ROLLS.

Bread sponge for 18 rolls; mix a tablespoonful of lard or butter or half of each, and let it be a generous spoon. Add a little salt; mix as for rolls, and let it rise; then roll each one flat, putting a gen-

erous teaspoonful of the following filling in the center of each; fold sides and ends. Pinch well to keep the filling in; let it get light; brush with milk and honey, and bake.

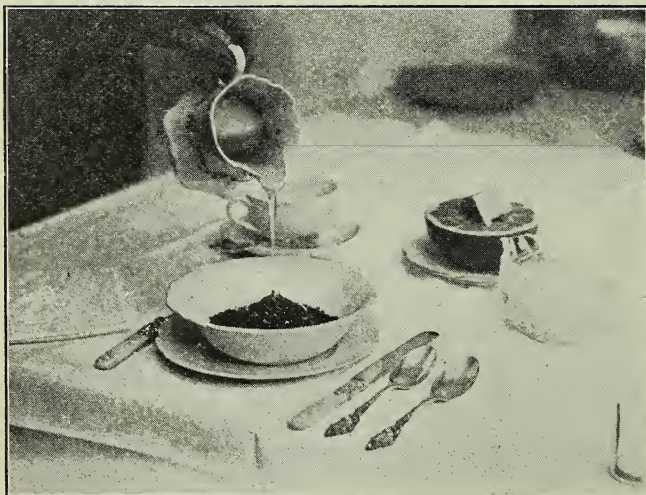
One tablespoonful of butter; one cup of honey; $\frac{1}{2}$ cup chopped nut meats; whip the butter and honey; add nut meats last; sprinkle with nut meats if you wish it extra nice.

M'QUESTON BISCUITS.

Light sponge for fifteen biscuits; one cup of honey, extracted; half a cup of lard; a little salt; mix, and let it get very light. Roll out, and cut with doughnut-cutter. The doughnut-cutter is important in making these. Brush with a little milk and honey; let it get very light, and bake. This is nice for tea.

FAMOUS BISCUITS.

These biscuits are famous when eaten with



Did you ever try honey and cream on "grape nuts"?



An ideal breakfast: Honey on grapefruit; comb honey and cream on shredded wheat; honey cereal coffee.

honey. There are always calls for more.

One full quart flour; one tablespoonful of lard; one teaspoonful salt; $\frac{1}{4}$ teaspoonful of soda; one heaping teaspoonful of baking-powder; sour milk to mix, not very stiff, but work slightly. Soft flour, soda, baking-powder, and salt all together; work in the lard; make a hole in the center of the flour, and pour in the milk. Mix with a spoon until rather soft dough; work, roll, cut, bake in a quick oven.

Cambria, Wyo.

Mrs. CHAS. BOWLES.

HONEY GINGERBREADS.

I produce only comb honey, but sometimes there are leaky sections, or in some other way I have a supply of liquid honey on hand. If my family know about it a demand is immediately made for honey gingerbread cookies or honey gingerbreads, as they call them. They keep indefinitely, and get better the older they are. It is made thus:

One cup each of butter, honey, sugar, and nut meats; one egg; 2 teaspoonfuls of soda; one tablespoonful of ginger. Mix stiff with flour—usually about four cups. Drop by the teaspoonful on a greased pan, and bake in a moderately hot oven.

Keokuk, Ia., Aug. 7.

MERTA MITCHELL.

DELICIOUS SQUASH OR PUMPKIN PIE.

One quart or its equivalent of canned pumpkins or squash; one quart new milk; 3 eggs; $1\frac{1}{2}$ cups honey; one cup of sugar; one level teaspoonful cinnamon; 1-3 teaspoonful ginger; 1-3 teaspoonful cloves; $\frac{1}{2}$ nutmeg, $1\frac{1}{2}$ rounding tablespoonfuls flour; one level teaspoonful salt; one large tablespoonful butter. This makes three large pies. The crust should be rich; and the pie is much improved by frosting or covering with sweetened whipped cream. Pie should be baked slowly and well.

Garden City, Mo. MRS. LUCY M. WAGNER.

YANKEE CRULLERS.

Three eggs, one cup of milk, 2 cooking spoonfuls of honey; one cup sugar (more or less to taste); $\frac{1}{2}$ teaspoonful of salt. Mix these all well together, then add 3 teaspoonfuls (heaping) of baking-powder. Sift the baking-powder and flour together into the mix—enough to make a rather soft dough. The mixing should be done with a spoon. The dough should stick to the hand or board, and therefore cannot be worked with the rolling-pin. Flour the

board and the bands, and flatten a portion of the dough with the hands. Cook in lard not too hot, but give a little more time.

OLD ORCHARD CORN BREAD.

Three eggs, one pint milk, 2 cooking spoonfuls of honey; 2 large tablespoonfuls of sugar; one large tablespoonful of butter; one level teaspoonful of salt; three teaspoonfuls of baking-powder; 2 parts corn meal to one part flour—enough to make a batter which will drop (but not run) off the spoon. The oven should be moderately hot, and be sure the loaf is baked through.

GRANDMA'S HOMINY MUFFINS.

Two cups cold boiled hominy; 2 eggs; one pint milk, scant; 2 cooking spoonfuls of honey; one level teaspoonful of salt.

Mix these all well together thoroughly. Then add 2 heaping teaspoonfuls of baking-powder mixed into corn meal and flour, equal parts, and of this mixture use enough (about two cupfuls) to make like a stiff cake dough. The southern finely ground white corn meal is preferable, as it has a fine flavor. Bake in a rather hot oven to a golden brown. It may be baked in a shallow loaf, but is much better baked in muffin-rings or patty-pans.

B. KEEP.

HONEY MUFFINS.

Half a cup of butter; 3 tablespoonfuls of honey; 2 eggs; $2\frac{1}{2}$ cups of graham flour; $\frac{1}{2}$ cup white flour; 3 teaspoonfuls baking-powder. Add milk to make a thick batter. Cream the butter and honey together, add the eggs well beaten. Mix the baking-powder with the flour, and add to the other ingredients, alternately, with the milk. Bake in a hot oven.

A FRUIT DESSERT.

Equal quantities of peaches, raspberries, and stoned cherries, arranged in layers. Pour over it half a cup of honey and the juice of half a lemon mixed together. Cover, and let it stand for a few hours.

DESSERT FOR DYSPHEPTICS.

Rice, $\frac{1}{2}$ cup; white of one egg; 3 tablespoonfuls of honey; half a lemon. Wash the rice through several waters. Sprinkle it into one quart of boiling water, salted. Boil hard for half an hour. Whip the white of the egg stiff; add the honey to it gradually, beating constantly; then add the lemon juice. Strain the rice, and shake dry; and, while still piping hot, add it to the egg-whip, beating well. Turn into a glass dish and serve cold, with cream or without.

Erindale, Ont., Can.

JESSIE LEES.

HONEY CRUSTS.

Trim and butter 6 half-slices of stale bread, and arrange them in a buttered baking-dish. Core three large juicy tart apples and halve them crosswise. Lay them on the board; cut side down and fill to overflowing with a mixture of honey and nuts, lightly salted. Bake half an hour, or until the crusts are brown, crisp, and sugary, and the apples brown, tender, and foamy. Serve hot or cold with whipped cream. Butternuts and Brazil nuts are particularly good.

R. F. D.

HONEY RUSKS.

Three cupfuls of flour; 2 cupfuls of milk; 1-3 cupful of honey, or more, according to taste; one cake of compressed yeast dissolved in $\frac{1}{2}$ cupful of warm water; $\frac{1}{4}$ teaspoonful of salt. Mix thoroughly, and set in a warm place to rise. When very light add a beaten egg, 3 tablespoonfuls of melted butter, and flour for a soft dough—about a cupful. Knead lightly, and mold in small biscuits or twists. Raisins, currants, or cardamom seed may be added at discretion. Rub the top with beaten egg; cover, and let it rise again until they double in bulk, and are very light and fluffy. Bake 20 to 25 minutes in a moderate oven, glazing them with sugar and water just before removing from the oven.

R. F. D.

A LAXATIVE DRINK.

A very wholesome and refreshing drink is made by dissolving a level teaspoonful of pure cream tartar in a little boiling water, adding a tablespoonful of honey, and filling up the glass with cold water, or hot water where a hot drink is preferred. This is especially good in case of a feverish cold.

R. F. D.

DAFFODIL MERINGUE.

Moisten 2 tablespoonfuls of granulated tapioca with cold water and stir it into a pint of boiling water. Salt lightly, and cook until clear. Beat the yolks of 2 or 3 eggs, and beat in $\frac{3}{4}$ cupful of honey with 2 tablespoonfuls of lemon juice and one tablespoonful of butter. Add this gradually to the tapioca, and cook over hot water until it thickens—about 20 minutes. Pour into a buttered dish, adding a little candied lemon-peel if you like. Cover with a meringue made of the white of egg beaten with 2 or 3 tablespoonfuls of honey, and bake to a delicate fawn color.

R. F. D.

HONEY MOUSSE.

Peel and cut up two oranges, rejecting the white inner skin; soak a teaspoonful of powdered gelatine in a tablespoonful of water. Heat one cupful of thick honey over boiling water. Add the orange and gelatine, and stir for five minutes; then remove it from the fire, and when cold add a pint of thick cream whipped stiff. Pack in ice and coarse salt (equal quantities), and let it stand for three or four hours. Pineapple or other fruit may be used instead of orange. This is easy to make, requires no freezer, and the result is delicious.

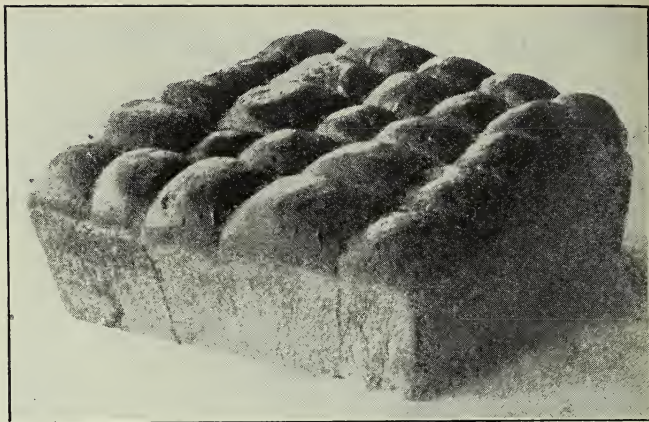
R. F. D.

TIP-TOP LEMON PIE.

Yolks of 3 eggs beaten light; one small cupful of honey; one tablespoonful of flour; juice, flesh, and grated rind of one lemon; one teaspoonful of melted butter. Mix thoroughly in the order given, then add $1\frac{1}{4}$ cupfuls of rich milk; pour into a pie-plate lined with a good crust, pricked to prevent air blisters, and bake until set. Cover with a meringue of the whites, beaten with 3 tablespoonfuls of honey, and a few drops of lemon juice, and brown lightly.

R. F. D.

[After trying this recipe it seemed to us that it was a little too "wet." We would suggest that only half a cupful of honey be used, and half a lemon. Of course, tastes differ. Perhaps many would prefer the recipe as originally given. We baked



Honey Rusks, or Sweet Biscuit. Recipe by Rachel F. Dahlgren.

the crust separately, and also cooked the filling in a double boiler before putting it in the shell.—Ed.]

IVORY CREAM.

One tablespoonful of granulated gelatine; $\frac{3}{4}$ cupful of honey; 2 cupfuls of milk; one cupful of thin cream; one cupful of peaches or other fruit; $\frac{1}{2}$ teaspoonful of bitter almond. Warm the milk, cream, and honey together, but do not scald them. Add the gelatine, which has been soaked in milk for a few minutes, and the almond extract. Stir till the gelatine is dissolved, and set it in a cold place until it begins to stiffen; then add the peaches, peeled and cut fine. Mix lightly, and pour into a wetted mold. Bananas or canned peaches may be used when the fresh fruit is not in season. Decorated with split almonds, and served with whipped cream, this is a dessert worthy of any occasion.

Redding, Ct.

RACHEL F. DAHLGREN.

HONEY COOKIES.

Cream half a cup of butter; beat in $\frac{3}{4}$ of a cup of sugar; one egg and one yolk beaten together; half a cup of strained honey, the grated rind of a lemon, and three cups of flour sifted with four teaspoonfuls of baking-powder. More flour may be required. The dough should be firm enough to be easily handled; knead slightly (a little at a time); roll into a thin sheet, and cut into cakes. Set the shapes in a buttered pan. Beat the white of an egg (left for the purpose) a little, and use it to brush over the cookies in the pan; then at once sprinkle with fine chopped blanched almonds, and dredge with granulated sugar. Bake in a moderate oven.

MRS. O. C. HINMAN.

Silver City, N. M.

HONEY COOKIES.

One cup shortening (butter and lard); one cup honey; one cup brown sugar; 2 eggs; one tablespoonful of soda dissolved in 6 tablespoonfuls of sweet milk; 2 tablespoonfuls of vinegar; 2 teaspoonfuls ginger; one teaspoonful salt. Add flour to make a soft dough. Roll thin.

Owosso, Mich.

FLORENCE M. GALLAGHER.

HONEY GINGER-SNAPS.

Take one pint of honey, one teaspoonful of ginger, and one teaspoonful of soda dissolved in a little water and two eggs. Mix all, and work in all the flour possible. Roll very thin, and bake in a moderately hot oven. Any flavoring extracts can be added as desired.

Fresno, O.

LILLIAN PIGMAN.



Honey drop cakes. Recipe by Martha W. Dewees.

HONEY DROP CAKES.

One cup sugar; one cup shortening ($\frac{1}{2}$ butter, $\frac{1}{2}$ lard); 1-3 cup buttermilk or sour cream; 2 tablespoonfuls extracted honey; 2 or 3 eggs well beaten; $\frac{1}{4}$ teaspoonful soda; one teaspoonful baking-powder; $\frac{1}{2}$ teaspoonful vanilla, orange, or lemon as suits the taste. Flour to make a very stiff batter to drop from a spoon on greased pan, and bake in a moderate oven. These will run together on baking, and must be cut apart with a knife, but are much better than rolled, besides being less trouble. This is a well-tested recipe, and pronounced excellent by all who have tried it.

Barnesville, O.

MARTHA W. DEWEES.

[We find that it requires $3\frac{1}{2}$ cups of flour for the drop cakes. This recipe also makes an excellent cake if 8 cups of flour are used and only 2-3 cup shortening.—ED.]

HONEY FRITTERS.

Take $1\frac{1}{2}$ cupfuls of sifted flour; 2 tablespoonfuls honey; 2 teaspoonfuls baking-powder; one egg; $\frac{1}{4}$ teaspoonful salt; 2-3 cupful milk; 2 tart apples. Mix and sift the dry ingredients and stir into them the beaten egg with which the milk and honey have been mixed. Pare and core the apples; cut into rings or dice, and dip into the batter. Fry in deep hot fat; drain, and sprinkle with pulverized sugar if desired.

HONEY CORNSTARCH PUDDING.

Take 4 cupfuls scalded milk; $\frac{1}{4}$ teaspoonful salt; 1-3 cup honey; $6\frac{1}{2}$ tablespoonfuls cornstarch. Mix the honey, salt, and cornstarch. Stir in the hot milk gradually, stirring until smooth. Stir and cook over boiling water until the mixture thickens. Cover and cook 15 minutes. Turn into a wet mold; chill, and serve with cream and sugar.



Honey cornstarch pudding. Recipe by Mrs. Harry V. L. Hager.

STEAMED SUET PUDDING.

Take 3 cupfuls sifted flour; $\frac{1}{2}$ teaspoonful nutmeg; 4 teaspoonfuls baking-powder; one teaspoonful cinnamon; $1\frac{1}{2}$ teaspoonfuls salt; $\frac{1}{2}$ teaspoonful ginger; $\frac{1}{2}$ teaspoonful cloves; one cupful finely chopped suet; one cupful milk; one cupful honey; one cupful chopped raisins. Mix and sift the dry ingredients, and add the suet and raisins. Add the honey to the milk, and stir into the dry mixture. Turn into a buttered mold and steam 3 hours. Serve hot with sauce.

COFFEE CAKE.

Take $2\frac{1}{4}$ cups of sifted flour; 3 tablespoonfuls of honey; 3 teaspoonfuls of baking-powder; 4 tablespoonfuls of butter; $\frac{1}{2}$ teaspoonful of salt; milk; one egg. Mix and sift the dry ingredients and rub in the butter. Beat the eggs; add enough milk to make $1\frac{1}{4}$ cups, and stir in the honey. Stir the liquid mixture into the dry mixture. Turn out into a shallow buttered pan; brush the top with melted butter; sprinkle with 3 tablespoonfuls of sugar mixed with $\frac{1}{2}$ teaspoonful cinnamon, and bake in a moderate oven.

SCALLOPED APPLES.

Take 3 cupfuls soft stale bread-crumbs; $\frac{1}{4}$ cupful honey; $\frac{1}{4}$ cupful butter; $\frac{1}{4}$ teaspoonful grated nutmeg; one quart sliced apples; grated rind, and juice of $\frac{1}{2}$ lemon. Melt butter, and stir lightly into the bread-crumbs. Cover the bottom of the buttered pudding-dish with crumbs, and spread over one-half the apples. Cover with half the honey, nutmeg, lemon juice, and rind mixed together; repeat, cover with the remaining crumbs, and bake 40 minutes in a moderate oven. Cover at first to prevent the crumbs browning too rapidly. Serve with sugar and cream.

NEW ENGLAND PUDDING.

Take one cupful of tapioca; $\frac{1}{2}$ teaspoonful salt; 3 cupfuls boiling water; $\frac{1}{2}$ cup honey; 2 tablespoonfuls butter; 6 tart apples. Soak tapioca in cold water one hour. Mix the soaked tapioca with a little cold water, and stir into boiling salted water. Cook over boiling water until transparent. Pare, halve, and core the apples, and place in a buttered baking dish. Cover with honey and dot with butter. Pour the tapioca over the apples and bake in a moderate oven until the apples are soft. Serve with cream and sugar.

HONEY GINGERBREAD.

Take $\frac{1}{2}$ cupful lard or butter; 3 cupfuls sifted flour; $\frac{1}{2}$ cupful hot water; one teaspoonful soda; one cupful molasses; two teaspoonfuls ginger; $\frac{1}{2}$ cupful honey; one teaspoonful cinnamon; 1 egg; $\frac{1}{4}$ teaspoonful cloves. Melt the fat in the hot water,

and add the molasses, the honey, and the beaten eggs. Add the mixed and sifted dry ingredients and bake in a cool oven.

CORN BREAD.

One cup sifted flour; $\frac{1}{2}$ teaspoonful salt; one cup corn meal; 2 tablespoonfuls melted butter; 3 tablespoonfuls honey; 2 eggs; 3 teaspoonfuls baking-powder; one cup milk. Mix and sift the dry ingredients. Beat the eggs; add the milk, the honey, and the melted butter, and combine with the first mixture. Bake in a shallow pan or muffin tins.



Honey oatmeal cookies. Recipe by Mrs. A. S. Bradley.

HONEY MUFFINS.

Three and one-half cupfuls of sifted flour; 3 tablespoonfuls honey; one teaspoonful salt; 6 tablespoonfuls melted butter; 5 teaspoonfuls baking-powder; 2 eggs; $1\frac{1}{2}$ cupfuls milk. Mix and sift the dry ingredients. Beat the eggs, add the milk, the honey, and the butter, and combine the two mixtures. Put into buttered muffin-tins and bake 20 minutes in a moderate oven.

CORN GRIDDLE-CAKES.

Take 2 cupfuls of corn meal; $\frac{1}{4}$ cupful of honey; one cupful of sifted flour; 2 eggs; $\frac{1}{2}$ teaspoonful of salt; $2\frac{1}{2}$ cupfuls of milk; three teaspoonfuls of baking-powder; 2 tablespoonful melted butter. Mix and sift the dry ingredients. Beat the eggs, add the milk, the honey, and the melted butter, and combine with the first mixture. Bake on a well-oiled griddle.

HONEY RICE PUDDING.

Take 2 cupfuls boiled rice; $\frac{1}{2}$ cupful honey; $1\frac{1}{2}$ cupfuls milk; $\frac{1}{2}$ cupful raisins; one beaten egg; a pinch of salt and cinnamon. Mix all the ingredients but the cinnamon. Put into a buttered baking-dish; sprinkle with the spice, and bake in a moderate oven until thick and brown. Serve cold.

Johnstown, Pa. MRS. HARRY V. L. HAGAR.

I live on a farm, as many other beekeepers do, and I like to cook with cream instead of butter, as it is much more wholesome, and with honey instead of sugar. So I have to change the cook-book recipes to suit myself.

SALAD DRESSING.

Take yolks of 2 eggs; 2 tablespoonfuls of honey; one tablespoonful of salt; $\frac{1}{2}$ cup olive oil; lemon juice or honey vinegar (weak). Beat together the yolks, honey, and salt. Add a few drops of oil at a time, beating constantly until the oil is all added. Thin down to the desired consistency with lemon juice or weak honey vinegar.

HONEY CANDY.

Take 2 cups of sugar; $\frac{1}{4}$ cup honey; $\frac{3}{4}$ cup thick cream. Put the ingredients into a sauce-pan; stir till dissolved, then boil without stirring till a hard ball is formed when tried in cold water. Remove from the fire. Beat till thick; pour into a buttered plate and cut into squares.

HONEY "BROWN BETTY" PUDDING.

Take 4 cups raw apple cut fine; 2 cups bread crumbs; $\frac{1}{2}$ cup each of honey and hot water; 2 teaspoonfuls of butter or cream; cinnamon. Put a layer of the apple in a well buttered pudding-dish; then a layer of crumbs. Mix the honey and hot water. Pour part of it over the crumbs and add a sprinkling of cinnamon, and a few dots of butter or thick cream. Add another layer of apple, and so on until the dish is full, with crumbs on top. Cover,

and bake 45 minutes. Eat with sauce of $\frac{1}{2}$ honey and $\frac{1}{2}$ cream.

HONEY OATMEAL COOKIES.

One cup of honey; one of rich sour cream; 2 eggs; 2 cups of rolled oats and 2 cups of flour; one tablespoonful of grated chocolate or cocoa; one teaspoonful of soda; $\frac{1}{2}$ teaspoonful each of cinnamon, cloves, nutmeg, and salt; one cup of chopped raisins; $\frac{1}{2}$ cup of chopped nuts (if desired). Sift the dry ingredients together (except the rolled oats); add all other ingredients. Stir well, and drop by teaspoonfuls in cooky-pans, or bake in gem-pans.

HONEY GINGERBREAD.

One cup honey; $\frac{3}{4}$ cup rich sour cream; $\frac{1}{2}$ cup molasses; $1\frac{1}{2}$ teaspoonfuls ginger and one teaspoonful each of soda and salt; 3 cups of flour; 2 eggs. Sift the dry ingredients together; add all the rest, and beat well. Bake in a flat pan or in gem-pans.

BAKED APPLES.

Take 6 apples; one cup each of cream and honey. Mix the cream and honey. Dig out the core of each apple from one end, leaving the other end closed. Fill the holes with the honey-and-cream mixture. Bake with a little water in the bottom of the pan. Use the rest of the honey-and-cream mixture as a sauce to eat on the apples.

Locke, Wash.

MRS. A. S. BRADLEY, JR.

HONEY COOKIES.

One cup of granulated sugar; one cup of boiling water; one cup of lard or butter; one cup of honey; two teaspoonfuls of cinnamon; one teaspoonful ginger; one teaspoonful of soda with enough water to dissolve. Put all the above, except water, in flour, and pour the one cup of boiling water over it and mix it until as stiff as biscuit dough. Roll out thin and cut into cookies, and bake in a quick oven.

Watseka, Ill.

MRS. J. H. GILLAN.

For some time we have been using honey in place of molasses, and find it superior. In baking apples we fill the centers with honey, which gives them a finer flavor. One of our neighbors makes her apple jelly with honey, and it is very nice, both in color and flavor.

Served with fresh dewberries and peaches, it makes a delicious dessert, as it imparts a much richer flavor than sugar. We are going to can our peaches with honey this fall.

In making fruit cake, mince meat, gingerbread, plum pudding, and brown bread it is superior to molasses.

Cookies and cake keep moist longer made with honey than with sugar, which is an advantage in this dry climate.

Loma, Col.

MISS FORREST BOYD.

Peaches, pears, apricots, prunes, and strawberries are never canned any other way at our house than with honey. Cooking with honey is my hobby, as I am ever experimenting with new recipes.

GRAHAM PUDDING.

Take $\frac{1}{4}$ cup butter; 2-3 cup strained honey; $\frac{1}{2}$ cup milk; one egg; $1\frac{1}{2}$ cups graham flour, $\frac{1}{2}$ teaspoonful soda, one teaspoonful salt; one cup seedless raisins. Melt the butter; add honey, milk, and egg, well beaten; dry ingredients mixed and sifted, and raisins; turn into buttered mold; cover, and steam 2 $\frac{1}{2}$ hours. Serve with pudding sauce.

CANNING FRUIT WITH HONEY.

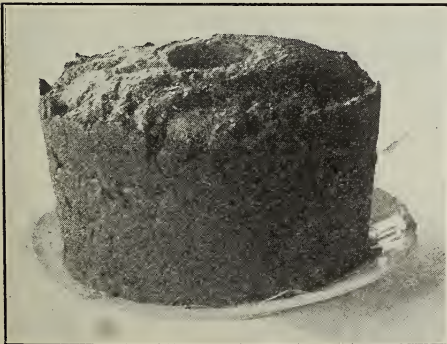
Prepare your fruit as usual for canning, in the way of paring, hulling, etc. Put on to boil. When it is done ready for canning add your honey, about two-thirds as much as you would sugar (this is according to your own taste, as some prefer it sweeter than others). [We have always used the same amount as formerly used of sugar.—Ed.] Have your jars ready, clean, and very hot. Now put in your fruit and seal. Be sure to let the fruit just come to the boiling-point. After adding your honey, *do not boil*, as this spoils your fine flavor. Fruit canned thus keeps as well as if not better than by the old method of canning with sugar; and when once tried no other way will be used.

HONEY COOKIES.

Two eggs, half a cup sugar, 2 cups extracted honey, one cup of boiling water in which dissolve a teaspoonful of soda; any flavoring or spice desired. Flour to mix very stiff. Mix in the order given; roll out and bake. These are hard when first baked, but keep in a tight jar or box a few days and they are fine.

HONEY CAKE.

One egg, one cup sugar, one of sour cream; one cup buttermilk; 3 cups extracted honey; one teaspoonful salt; $\frac{1}{2}$ teaspoonful each of ginger, cinnamon, and cloves, one heaping teaspoonful of soda; $3\frac{1}{2}$ cups flour. Mix the egg, sugar, honey, cream, and buttermilk in order given; sift other ingredients with the flour; mix and bake in a pan lined with greased paper in a rather slow oven. The addition of fruit to this makes a fine fruit cake.



Graham pudding. Recipe by Mrs. Homer Cheney.

HOT-WATER HONEY CAKE.

Take $\frac{1}{2}$ cup sugar; one tablespoonful lard; $1\frac{1}{2}$ cupfuls of honey; one teaspoonful of any spice or flavoring desired; $\frac{1}{2}$ teaspoonful salt; $2\frac{1}{2}$ cups flour. Mix in order given, and, lastly, add one cup of boiling water in which dissolve a heaping teaspoonful of soda. Beat well; turn into a well-greased pan and bake in a moderate oven. This is fine, and is a great favorite at our house.

RED-CURRENT JELLY.

Stem and clean red currants; heat slowly, and extract the juice. Put back on the stove, after measuring, and let it boil 20 minutes. To every pint of juice add a scant cup of sugar and $\frac{1}{2}$ pint of extracted honey. Let it boil a few minutes till ready to jell, which will be in about ten minutes. You can tell by taking a little out in a sauce-dish and cooling it. Then turn into jelly-glasses, and you have something fine.

New Plymouth, Ida. Mrs. HOMER CHENEY.



Apple pudding. Recipe by Iona Fowls.

HONEY HERMITS.

One cup butter; $1\frac{1}{2}$ cups warm honey in which is dissolved a teaspoonful of soda; 3 eggs well beaten; 3 cups flour, one teaspoonful salt, 2 teaspoonfuls cinnamon sifted together; $2\frac{1}{4}$ cups raisins, chopped, $2\frac{1}{4}$ cups chopped nut meats. Drop by teaspoonfuls, and bake in a moderate oven.

LEMON CRUME PIE.

One cup buttered bread crumbs; $\frac{1}{2}$ cup honey; 2 yolks and the white of an egg; pinch of salt; one cup cold water into which is dissolved a tablespoonful of cornstarch, level; juice and rind of one lemon. Fill crust, and bake. When done, cover with meringue.

LADY FINGERS.

Beat together one cup honey, warmed, $\frac{1}{2}$ teaspoonful baking-powder, $\frac{1}{2}$ teaspoonful soda; $\frac{1}{2}$ cup butter; one teaspoonful salt, level; 2 eggs well beaten; 4 cups flour. Cut in little strips; roll in sugar, and bake in a quick oven.

NUT BREAD.

Take 2 compressed yeast cakes; 1-3 cup warm honey; $\frac{3}{4}$ cup lukewarm scalded milk; 3 cups flour; 2 tablespoonfuls butter; white of an egg, beaten; one cup chopped nuts; 2 teaspoonfuls salt. After dissolving the yeast cakes in the warm milk, stir in a tablespoonful of honey and $1\frac{1}{2}$ cups of flour, beating all thoroughly. Then place in a warm place to rise. When light, add the remainder of the honey and flour and the rest of the ingredients. Knead well and place in a greased bowl and let it rise until double in bulk. Then make into a loaf; and, when light enough, bake in a slow oven.

APPLE PUDDING.

Apples sliced fine; $\frac{1}{4}$ cup honey; cinnamon; butter; one cup rice, cooked for several hours; one egg beaten into the rice; one teaspoonful salt; $\frac{1}{2}$ cup water; 3 or 4 slices bread (crumbed). In the bottom of the pan place a layer of crumbs with dots of butter here and there; then a layer of apples, with honey and cinnamon on top. The third layer is the mixture of rice, egg, and salt. The fourth and fifth layers are a repetition of the first and second. Add $\frac{1}{2}$ cup water and bake in a moderate oven. When done, cover with meringue. [In following

this recipe we used the yolks of two eggs instead of one whole egg, as given, saving the whites for the meringue.—Ed.]

APPLE-SAUCE CAKE.

Take $\frac{1}{2}$ cup butter; $\frac{3}{4}$ cup honey if apples are mild; but if the apples are sour, use $1\frac{1}{4}$ cups honey; $\frac{3}{4}$ cup apple sauce; one teaspoonful soda; the soda should be well beaten into the sauce; 2 cups flour; $\frac{1}{2}$ cup raisins; one teaspoonful each of cinnamon, cloves, and nutmeg.

Oberlin, O.

IONA FOWLS.

CHOCOLATE NOUGATINES.

One cup granulated sugar; 1-3 cup glucose; 1-2 cup extracted honey; piece of paraffin, size of a pea; $\frac{1}{4}$ cup of water; $\frac{1}{4}$ teaspoonful of salt; whites of



Chocolate nougatines. Recipe by Frank Quackenbush.

2 eggs beaten dry; one cup English-walnut meats chopped fine; one teaspoonful vanilla; $\frac{1}{2}$ lb. Baker's chocolate. Put the sugar, glucose, honey, paraffin, and water over the fire; stir occasionally, and let it boil to the hard-ball degree. Add the salt to the eggs before beating them, and gradually pour on part of the syrup, beating constantly with an egg-beater. Return the rest of the syrup to the fire, and let it boil until brittle when tested in water. Then gradually turn it on to the eggs, beating constantly. Return the whole to the sauce-pan; set over the fire on an asbestos mat, and beat constantly until it crisps when tested in cold water. Pour into a buttered pan; set it aside to cool; cut in squares, and dip in melted chocolate.

HONEY AND NUT SANDWICHES.

Mix one cup of honey with 2 teaspoonfuls of lemon juice: then stir in enough finely chopped nuts to make a stiff paste; spread on slices of buttered bread.

HONEY CANDY.

One quart honey; 3 heaping tablespoonfuls of butter; 2 tablespoonfuls of vinegar; $\frac{1}{2}$ teaspoonful soda; 2 teaspoonfuls lemon extract. Boil the honey, butter, and vinegar until it hardens when dropped into water; stir in soda and extract; pour into buttered tins to cool.

Hebron, O.

FRANK QUACKENBUSH.

STEAMED GRAHAM PUDDING.

Half a cup of honey; one cup raisins; one cup graham; one teaspoonful each of cinnamon, cloves, ground; nutmeg; $\frac{1}{2}$ cup salt; one cup of soda in half a cup of boiling water. Turn in well-greased pudding-pan and steam $1\frac{1}{2}$ hours.

LEMON SAUCE FOR GRAHAM PUDDING.

One lemon rind grated, and juice squeezed on one cup of sugar; one egg and a spoonful of butter; small pinch of salt. Boil, and serve hot.

RICH BLACK FRUIT CAKE.

One pound each of raisins, currants, and butter; 4 eggs; teaspoonful of cinnamon, one cup of sour

milk; one teaspoonful cloves, one cup of honey, one teaspoonful nutmeg, 2 cups brown sugar, one teaspoonful allspice; 2 teaspoonfuls soda; flour to make a heavy batter. Bake in a slow oven one hour.

HONEY VINEGAR.

Pour one pint of strained honey in a gallon jug, and fill the jug with clear rain water. Tie cloth over the top, and keep warm.

Durand, Ill.

ADDIE WESTBROOK.

BOSTON BAKED BEANS.

Look over one quart of dried beans. Soak them in cold water over night. Drain the water off and put on to parboil, adding hot water and a pinch of soda. When the hull begins to break, drain. Then if you have a bean-pot or roaster pour the beans in it and add a teaspoonful of salt; one tablespoonful of tomato catsup; or, if you prefer mustard, use that. Add three tablespoonfuls of extracted honey. Cover the beans with hot water; season with pepper; then place on top three or four slices of pickled pork or breakfast bacon, and bake in moderate oven three hours or until the beans have taken on a rich brown color.

BAKED SQUASH.

Peel and slice your squash the same as you would large sweet potatoes—say half an inch thick. I use a large granite bread-pan for cooking the squash. Place slices in the bottom of the pan. Dot each slice with a generous piece of butter; strew honey over the squash, say a teaspoonful to each slice; then pour in hot water enough to cover the bottom of the pan. I first start the cooking on top of the range. After it has boiled well for, say, ten to fifteen minutes, turn each slice with a knife, and boil until tender. You may possibly have to add a little more hot water. You can now place the pan in the oven and let the squash take on a delicate brown. Serve at once after removing from the pan.

If you have never eaten baked squash prepared in this way, try it. We prefer it to sweet potatoes, and it is much more easily digested.

Washington, Ind.

MRS. S. H. BURTON.

FRUIT CONFECTION.

One pound of dried figs; $\frac{1}{2}$ pound each of dried peaches, prunes, and raisins; one cup of honey; one cup of chopped nuts. Run the fruit through a meat-chopper; mix in the honey and nuts, and knead; press into a form; cut in squares; roll in powdered sugar, and serve.

Phoenix, Ariz.

MRS. JENNIE C. GIBSON.

HONEY CAKES.

One quart honey (warm); $\frac{1}{4}$ lb. butter (warm); one cup sour milk (thick); yolks of 3 eggs; 1 oz. baking-soda; $\frac{1}{2}$ teaspoonful powdered alum; $2\frac{1}{2}$ lbs. flour. Mix, and let stand from two days to two weeks; roll out thin, and bake. Frost, when cold, with pulverized sugar moistened with a little milk.

Council Bluffs, Ia.

MRS. J. B. KOUPAL.

SPICE CAKES.

One pint molasses; one pint strained honey; 12 oz. butter and lard; 12 oz. of brown sugar; 1 oz. soda; 1 oz. ginger; 1 oz. cinnamon; $\frac{1}{2}$ oz. cloves; 4 lbs. flour; stir the soda in tablespoonful of milk, and add last.

Watseka, Ill.

CLARENCE SCHOLL.

CUCUMBER PICKLES.

Two quarts of small cucumbers; one quart of vinegar; one lemon, one cup of honey (extracted).

Wash and soak the cucumbers in salt water 24 or more hours— $\frac{1}{2}$ cup of salt to a gallon of water; then drain, put the vinegar in granite kettle or pan; bring to the boiling-point; add the honey and lemon; grate the rind of it, and put in the vinegar. Then squeeze the juice and add it to the vinegar; also drop in the cucumbers and boil twenty minutes,

stirring them occasionally, then put all in glass jars and seal.

Buckley, Wash.

CAROLINE J. SWOPE.

WHOLE-WHEAT BREAD, WHICH CONTAINS ALL THE VITALIZING ELEMENTS OF THE GRAIN.

One quart whole-wheat flour, full measure (may be made $\frac{1}{2}$ graham or 1-3 rye); one pint water (may be made $\frac{1}{2}$ scalded milk, cold. This gives the bread a finer texture, and a flavor which may not please all); one large cooking-spoon (overflowing) of honey; $\frac{1}{2}$ compressed yeast cake, or the equivalent—the more yeast, the quicker the rising; $1\frac{1}{2}$ teaspoonfuls salt, medium-sized spoon, plump measure. Salt has a retarding effect upon fermentation, depending on the relative quantity. Have the water slightly warm in cold weather and cool in hot weather. Dissolve the yeast thoroughly in the water; add the honey; mix well, add the salt, stir until dissolved. A yellow-ware bowl is most convenient. Mix the flour and water perfectly by means of a

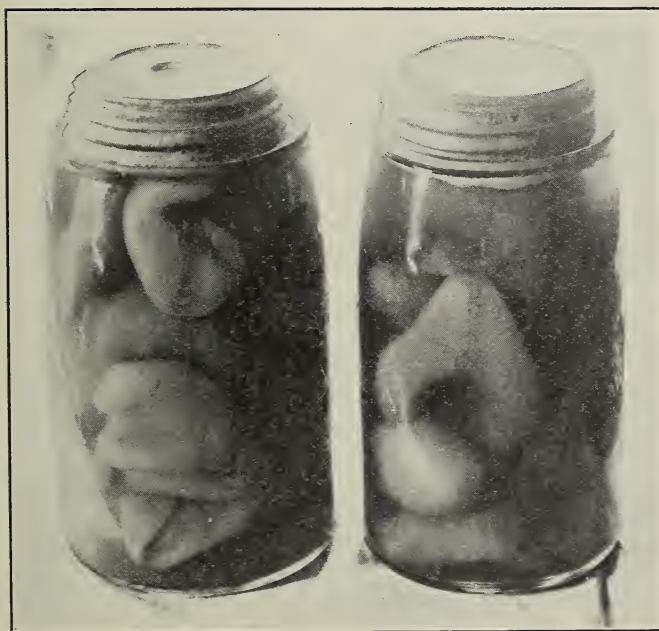
30 to 35 minutes in an oven not too hot. This bread does not become stale for several days if kept as other bread; but in our house it never has time to get stale or dry.

This recipe is not entirely original; but the addition of graham or rye, and the substitution of honey for sugar, are my own, and have been thoroughly proven. It may be well to add that the bread is not sweet from the use of honey (or sugar) when mixing the flour, water, etc. However, when rye is added, the bread is rather more inclined toward sweetness, probably because the fermentation is not carried forward as rapidly nor so far as to decompose the honey entirely. There is a natural flavor to the whole-wheat flour which might be described as "sweet," and it may be that this natural flavor is more noticeable when mixed with rye, which is never sweetened.

I have tried sugar in place of honey, but it has been voted not nearly as good in flavor or texture.

Hoboken, N. J.

C. D. CHENEY.



Pears canned without sugar. Only those who regularly use honey in canning and preserving can appreciate the rich flavor and the fresh natural color of the fruit thus prepared. And, best of all, the fruit keeps better than when canned with sugar.

large cooking-spoon, putting all together at once. The dough should be rather sticky and soft. If the dough is too stiff with the pint of water, more may be added, a teaspoonful or two at a time thoroughly incorporated, until the right consistency is attained. If the bread is wanted rather dry, leave the dough stiffer. Cover closely, keeping in a warm place in cold weather, and *vice versa*. In the morning turn the dough out on the board, and knead into it butter the size of an egg, flouring the board and hands as lightly as possible. The butter may be omitted, but it is a great improvement. Make two loaves in narrow pans; cover, and keep warm to rise. It should about double in bulk. If the dough is not covered closely the surface will dry so as to form a skin. This will cause streaks in the bread. Bake

HONEY DROP CAKES

Take $2\frac{3}{4}$ cups flour; 1 teaspoonful of baking-powder; one tablespoonful baking soda; 2 teaspoonfuls boiling water; one egg; one cup of honey; $\frac{1}{2}$ cup of crab-apple jelly; $\frac{1}{2}$ cup of butter. Cream the butter; add the jelly, and beat well. Dissolve the soda in the boiling water; beat the egg, and add, beating again; then the honey; and, lastly, stir in the flour sifted with the baking-powder. Drop by the teaspoonful on baking sheet, and bake in a slow oven until brown.

HONEY FRUIT BREAD.

Take 4 cups of flour; 1 cup brown sugar; 2 rounding teaspoonfuls of baking-powder; 3 eggs; $\frac{1}{2}$ cup of butter; 5 tablespoonfuls of honey; one cup of mixed candied fruits, cut up; one tablespoonful of candied ginger, cut up; $\frac{1}{2}$ cup of citron, cut up; 4 tablespoonfuls of orange juice; 4 tablespoonfuls milk. Sift the flour and baking-powder together; add the citron, mixed fruits, and ginger; cream the butter and sugar together; add one of the eggs, well beaten, and 3 tablespoonfuls honey, and

beat well. Beat the two remaining eggs, and add it with remaining 2 tablespoonfuls of honey, and beat again. Stir in the orange juice; sift the baking-powder with the flour, and add alternately with the fruit, which has been previously dredged with flour. Mix well, and bake in a greased loaf-tin in a slow oven for about an hour.

HONEY GINGER BREAD.

Take $\frac{1}{2}$ cup of butter; one cup of raisins; $\frac{3}{4}$ cup of honey; $\frac{1}{2}$ cup of chopped citron; $\frac{1}{4}$ cup of milk; one cup of candied cherries, cut up; 2 eggs; one rounding teaspoonful of baking-powder; $\frac{1}{4}$ teaspoonful of salt; 5 cups flour; one teaspoonful of ginger. Warm the butter, honey, and milk over a slow fire; cool, and add the well-beaten eggs, the salt, and the ginger. Sift the baking-powder with

the flour; dredge the fruit with flour, and add these alternately. Mix well, and bake in a greased loaf-tin about an hour.

East Orange, N. J.

Mrs. A. F. ROLF.

HONEY CAKE.

Honey, one cup; $\frac{1}{2}$ cup shortening; 1 use drippings; one egg; one cup milk, warmed; 2 cups flour; one heaping teaspoonful of soda; $\frac{1}{2}$ teaspoonful cream of tartar; $\frac{1}{4}$ teaspoonful salt. Sift the flour, soda, cream of tartar, and salt together three times. Stir the honey and shortening to a cream; break the egg in this, and beat thoroughly with spoon; then half the milk and half the flour alternately; beat well each time you add milk or flour. This makes a very soft dough, but is much more delicate so, and is very nice if warmed for luncheon. Bake in a moderate oven $\frac{3}{4}$ of an hour to an hour.

New Hampton, N. Y.

MARY HOWELL.

PRESERVED CANTALOUPE.

Honey, 1 lb.; cantaloupe, 1 lb.; bring the honey to a boiling-point, and drop in the prepared cantaloupe, which should be cut in thin slices.

Bunceton, Mo.

J. R. MARVE.

FRUIT SALAD.

Cut one cup each of banana and orange; pit a cup of cherries; stir up with $\frac{1}{2}$ cup of honey, extracted; garnish with slices of comb honey, and serve. Puffed rice, boiled rice, or boiled pearl barley can be added if desired.

Buckley, Wash.

CAROLINE J. SWOPE.

PEANUT COOKIES.

One cup chopped peanuts; mix and sift 3 cups of flour, $\frac{1}{2}$ teaspoonful salt, one scant teaspoonful soda, then add a cup of brown sugar, one cup strained honey; then add $\frac{3}{4}$ cup melted lard, 2 eggs well beaten, $\frac{1}{2}$ cup sour cream, one teaspoonful vanilla; add the nuts. Bake in a moderate oven, dropped from a spoon in a well-greased pan.

Laurel Springs, N. C.

Mrs. C. A. REEVES.

HONEY PUDDING.

Take a cup of toasted bread crumbs rolled fine; one quart milk; one teaspoonful soda; one cup honey; one cup raisins; half a teaspoonful each of cinnamon and nutmeg; 3 eggs and a small spoonful of butter. Steam or boil from $1\frac{1}{2}$ to 3 hours. Serve with any sauce desired.

Caldwell, Ida.

Mrs. CECIL LAPPIN.

DELICIOUS BAKED BEANS WITH HONEY.

Cook a quart of navy beans until tender; season with salt and pepper to suit your taste, then put on one heaping tablespoonful of lard and 4 level tablespoonfuls of honey, and bake one hour.

HONEY COOKIES.

One pint thick cream; one pint butter; 3 eggs; 2 teaspoonfuls soda; 3 coffee-cups of honey; flour enough to make stiff enough to handle, being careful not to get too stiff. These are fine, and will keep good for more than a month.

APPLE AND PLUM SAUCE WITH HONEY.

Cook apples well done, and sweeten with honey to suit taste.

Cook plums in a syrup made of equal parts of sugar (granulated) and honey.

Huntington, Ind.

Mrs. E. H. UPSON.

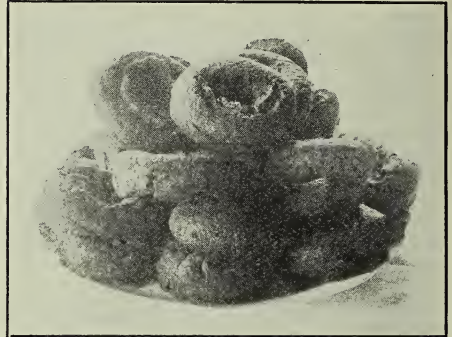
NORWEGIAN HONEY CAKE.

Take 9 eggs; 1 lb. sugar; 1 lb. honey; $\frac{1}{2}$ teaspoonful baking-soda; $\frac{1}{4}$ lb. or a little more of citron; one teaspoonful cloves; $\frac{1}{2}$ teaspoonful pepper; one teaspoonful ginger; 1 lb. flour. Beat the eggs and sugar well. My cook-book says one hour. Add the honey, which must be slightly warm; then the spices, then the citron cut fine, and, last, the well-sifted flour. The soda can be dissolved in a

teaspoonful of warm water, or sifted with the flour. This makes a large cake, and must bake $1\frac{1}{2}$ hours in an oven not too hot. It will keep for months. Grease the pan well.

Fairhope, Ala.

Mrs. W. A. FERMANN.



Honey doughnuts. Recipe by Julia A. Corbett.

HONEY DOUGHNUTS.

Take 2 eggs; one cup buttermilk; 1 cup sugar; one cup honey; one teaspoonful soda and 2 of cream tartar; butter size of an egg; one teaspoonful vanilla; flour to make stiff enough to roll. The honey added to this recipe makes the doughnuts a delicious brown, and also makes them keep moist for a much longer time.

HONEY-CURED HAM OR BACON.

To 100 lbs. of meat allow 10 lbs. salt, 2 ounces saltpeter, one ounce cayenne pepper, one quart honey, 8 gallons soft water; boil and skim; pour this on the meat when cool. When you hang it up to dry take sufficient honey and ground spices to make a stiff paste. Rub this well into the meat; and, after allowing it to penetrate from 4 to 6 inches, wash off and dry. Hams and bacon cured this way will be found particularly wholesome. I have followed this method for several years with the best results.

Amherst Point, N. S.

JULIA A. CORBETT.

HONEY GINGER CAKE.

Heat one cupful of extracted honey, and just before it reaches the boiling-point remove it from fire. Then add a teacupful of thin sour cream, two well-beaten eggs, half a teaspoonful each of salt, ginger, and cinnamon; one heaping teaspoonful of soda, and three scant cupfuls of sifted flour. Beat well, then flour half a cupful of seeded raisins, and stir in lightly. Bake in a moderate oven.

Osceola, Neb.

Mrs. W. A. CARNINE.

SWEET CUCUMBER PICKLES.

To one quart cucumbers take 2 cups of vinegar, one cup of honey, and a few mixed spices; let come to a boil, then pour over cucumbers and seal.

HONEY DROP COOKIES.

Take 2 cups of brown sugar; $\frac{1}{2}$ cup melted lard; 2 eggs; one cup cold water; $\frac{1}{2}$ cup honey; one cup raisins; one teaspoonful salt; one teaspoonful cloves; two teaspoonfuls cinnamon; two teaspoonfuls soda dissolved in a little cold water; 6 cups flour, or enough to make the dough stiff. Drop by teaspoonfuls on greased tin, and bake in a quick oven.

Fairfax, Ia.

Mrs. C. F. WIENEKE.

RAISIN HONEY PIE.

Cover a cup of seeded raisins with water, and stew until tender. Add $\frac{1}{2}$ cup of honey, one tablespoonful of butter, one tablespoonful of flour; beaten

yolk of one egg. Pour in pie-plates lined with any good pie paste, and bake. Beat the white of the egg to a stiff froth; add $\frac{1}{4}$ cup of sugar spread over the top of the pie, and return to the oven to brown.

CHOCOLATE HONEY-PIE.

Beat yolks of two eggs and white of one, leaving out one white for meringue; add $\frac{1}{2}$ cup honey; one tablespoonful of grated chocolate; one tablespoonful of butter; $\frac{1}{2}$ cup of sweet milk; one teaspoonful of vanilla, warm; pour into pie-plates lined with good paste, and bake until the paste is brown. These recipes will make one pie each.

Horse Cave, Ky.

Mrs. C. S. RHEA.

HONEY FILLING

Cream 2 tablespoonfuls of candied honey, and whip together with one cupful of thick cream. Flavor with lemon.

HONEY FROSTING.

Cook 4 tablespoonfuls of thin honey until a ball is formed when dropped into cold water. Pour into it the beaten white of an egg, and whip until cool. Flavor with cocoa or lemon.

SALAD DRESSING.

Beat together one tablespoonful candied honey; 2 tablespoonfuls thick sweet cream; one tablespoonful vinegar; $\frac{1}{4}$ teaspoonful mustard; pepper and salt to taste—no cooking. This is excellent over salad made from chopped apples and celery.

Wabeno, Wis.

CECELIA W. GENTZ.

JEWISH HONEY-CAKES.

One cup each of sugar and honey; 4 eggs; 6 cakes chocolate, sweet, grated, or 18 tablespoonfuls ground chocolate; 3 cups flour; 2 teaspoonfuls baking-powder; one tablespoonful cinnamon; one teaspoonful cloves; very little allspice and vanilla. Cook in a thin layer, and cut in squares.

Ventura, Cal.

FLORA MCINTYRE.

SANATORIUM GEMS.

Take 2 eggs, 2 cups sweet milk, $\frac{1}{4}$ teaspoonful salt, 2 cups entire-wheat flour. Beat very thoroughly; stand it on hot stove in gem-pans to brown the bottom for about five minutes; then bake in a good even oven for forty minutes.

Take 2 cups extracted honey, $\frac{1}{2}$ cup mashed red raspberries. Let it come to a boil, and eat on the hot buttered gems.

We enjoy our honey in many ways prepared as in recipe, and eaten on plain ice-cream. The children call it honey sundae.

Lockport, N. Y.

Mrs. M. E. NEWMAN.

LADYFINGER DOUGHNUTS.

Beat 2 eggs light: sift into one cup of flour one heaping teaspoonful of baking-powder; three rounding teaspoonfuls of crisco; then melt one medium-sized cup of extracted honey; one level teaspoonful of soda dissolved in 2 tablespoonfuls of sour milk. Flavor to suit taste. Add sufficient flour for as soft a dough as can be rolled, and cut in strip $\frac{1}{2}$ to $\frac{3}{4}$ inch, and 2 to 4 inches long. Fry in crisco. These fingers usually turn themselves when cooked on one side if cut the right size.

Boulogne, Fla.

Mrs. H. E. KILBURY.

CANNED PICKLES.

Put small even-sized pickles in salt for 24 hours. Then pack in glass or stone jars as closely as possible. Slice thinly a small quantity of horseradish root, and put a little in each can; also a small pinch of dill and mustard seed in the top of the can. Put the jars in a pan of cold water, first putting a folded cloth beneath the jars to prevent breaking, and place all on the stove to heat. In a granite kettle put enough cider or honey vinegar to cover the pickles. Season the vinegar with red and black pepper. Use from 4 to 8 tablespoonfuls of extracted

honey to each quart of vinegar. Allow the honey, pepper, and vinegar to come to a boil; pour over the pickles. In ten minutes pour back into the kettle to boil again; fill the cans again with the vinegar, and seal hot. It is easy to pour the vinegar out without the pickles coming out if they have been closely packed. Any of the things except vinegar, honey, and pepper may be omitted if any are disliked or not obtainable.

NEW GINGERBREAD.

One cup of extracted honey; a tablespoonful of melted butter; one tablespoonful of ginger; yolk of an egg beaten together, to which add a teaspoonful of soda dissolved in $\frac{1}{2}$ cup of buttermilk; then $1\frac{1}{2}$ cups of flour. Lastly, the white of an egg beaten stiff. Bake in a quick oven to a light brown.

Cora, Mo.

Mrs. MARY TROYER.



Honey baked beans. Recipe by Rose A. Hambly.

HONEY BAKED BEANS.

Soak over night one pint of small white beans. Bring to a boil, adding baking-soda the size of a bean, and allow to simmer for half an hour. Drain, and cook till tender in salted water, but not long enough to break the skins. Drain and rinse the beans, and put them in an earthen bean-pot. Pour over them a pint of milk, adding a tablespoonful of butter, 2 tablespoonfuls honey, and a pinch of cayenne pepper. Cover closely, and bake in a slow oven till the milk is absorbed.

HONEY RICE PUDDING.

One cupful boiled rice (any cooked cereal may be used); one pint of milk; 2 eggs; a pinch of salt; one teaspoonful butter; half cupful honey. Bake, and serve hot or cold.

Rose Isle, Manitoba.

ROSE A. HAMBLY.

CUSHSHAW'S, OR POTATO PUMPKIN, COOKED WITH HONEY.

Wash the outside of the pumpkin clean; then cut it into pieces about three inches square, and place in a preserving-kettle of about one gallon capacity, with one teacupful of water and $1\frac{1}{2}$ or 2 teacupfuls of honey. Let it cook slowly till the water and honey become a thick syrup, and the pumpkin well done and candied.

This is delicious, hot or cold, and a dish which my family is very fond of.

Millett, Tex.

Mrs. J. J. SOSSAMAN.

HONEY MINOR MEAT.

One bowl of meat chopped fine; and two bowls of apples. Add spice of all kinds to taste, and raisins and currants in abundance; vinegar, one cup, and sweeten with honey. Cook until tender. If you have more than you wish to use at once, can in Mason jars. The longer you keep it the better it will be.

HONEY BREAD.

I take the water off from the potatoes at noon and put two or three potatoes through the ricer into the water. When it cools I put a yeast cake in the

water and let it set until toward night. I then stir it up pretty stiff and keep it warm. In the morning I add a tablespoonful of salt, two tablespoonfuls of lard and two or three tablespoonfuls of honey; then mix it stiff with flour and keep in a warm place. Mix down when light; and, when light again, make it into loaves; and, when light again, bake for an hour in a good oven. The honey keeps the bread moist, and improves the flavor.

Carpinteria, Cal.

Mrs. A. L. DUPRAY.

SWEET-POTATO PUDDING.

One quart of grated sweet-potato; 2 well-beaten eggs; $\frac{3}{4}$ cupful of honey; $1\frac{1}{2}$ cupfuls of rich milk; 2 rounding tablespoonfuls of flour; nutmeg and cinnamon to suit the taste. Rub the potato through the food chopper using the medium knife. Mix well with the other ingredients and pour into a well-greased pan. Bake for about one hour in a moderate oven, stirring occasionally. Serve hot with hard sauce. It is also very good cold.

HONEY FOR BURNS.

Make a paste of honey and soda. Spread on the burn, cover with cotton and cloths. The pain is quickly relieved. Of course this is not for serious burns, but it is an excellent remedy for those painful little accidents which befall even the most careful person.

Concord, Tenn.

MISS DAISY F. RULE.

BROWN BREAD.

Take 2 cups buttermilk; $\frac{1}{2}$ cup each of dark honey, cornmeal, and white flour; 2 cups graham flour; 2 teaspoonfuls soda; one teaspoonful salt. Add raisins, currants, or dates. Bake 20 to 25 minutes.

San Jacinto, Cal.

A. K. WHIDDEN.

HONEY RICE PUDDING.

Bake 3 quarts of milk and one cup of rice in a slow oven for about 3 hours, stirring occasionally. When partly done add salt, one cup of raisins, and sweeten to taste with honey. Add more milk if pudding seems too thick. A delicious pudding.

HONEY HERMITS.

Two cups dark honey, $\frac{1}{2}$ cup molasses, $\frac{1}{2}$ cup water (warm), $1\frac{1}{2}$ level tablespoonfuls soda, 2 teaspoonfuls salt, 6 tablespoonfuls melted shortening, 1 cup seedless raisins. Flavor with vanilla. Stir very stiff with flour (about all you can stir into it). Drop by spoonfuls on well-greased tins, and bake in slow oven as they scorch easily.

HONEY CUCUMBER PICKLES.

Soak small cucumbers in weak brine over night. Boil a mixture of 2 cups vinegar, 1 cup water, 1 cup dark honey, 2 teaspoonfuls cinnamon, 1 teaspoonful allspice or cloves. Put pickles in jar and pour hot mixture over them and seal. Recipe for one quart. Pickles do not wilt.

Battle Creek, Mich. MRS. CHAS. A. JOHNSON.

HONEY COOKIES.

Melt $\frac{1}{2}$ cup of extracted honey; add 2 well-beaten eggs; $\frac{1}{2}$ cup of molasses or syrup; one cup of thick sour cream; a teaspoonful of soda; $\frac{1}{2}$ teaspoonful each of ginger and cinnamon; a pinch of salt, and flour to roll; cut out and bake in hot oven.

Osceola, Neb.

MRS. W. A. CARNINE.

TO PREVENT GRAPE JELLY CANDYING.

Add 2 tablespoonfuls extracted honey to 1 lb. of jelly. Let it boil two minutes longer, then fill your jelly-glasses.

COOKIES.

One cup extracted honey; one cup light-brown sugar; 2 eggs well beaten; a level tablespoonful of soda dissolved in 3 tablespoonfuls of vinegar; pinch of salt; flour to stiffen (about 3 cupfuls in this altitude). Mix at night, and bake in the morning.

HONEY BROWN BREAD.

Take 2 eggs, beaten very light; one cup honey, white or dark; 3 cups sour milk; 2 large cups of white flour; 3 large cups graham flour; 3 teaspoonfuls soda, level, sifted in flour; one teaspoonful salt. Bake in a rather slow oven 45 minutes or more. This will make 2 loaves, and keeps moist and soft a long time.

Osceola, Wis.

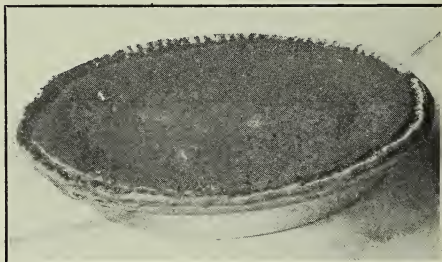
L. W. CHATFIELD.

APPLE HONEY PUDDING.

Bread crumbs, $1\frac{1}{2}$ cups; 2 beaten eggs; 1-3 cup extracted honey; $\frac{1}{4}$ teaspoonful soda; 2 medium-sized apples chopped rather fine. Mix, and add $\frac{3}{4}$ cup of water. Bake until firm in the center, about 20 minutes. Keep covered until the last few minutes. Turn out on plate, and serve with whipped cream sweetened with a little slightly warmed honey. Enough for four persons. Good warm or cold.

Glenn, Cal.

MRS. S. C. DAVIS.



Pumpkin pie. Recipe by Mrs. C. A. Smith.

I have kept bees over thirty years, and have used honey more or less in my cooking, and can say that I fully appreciate its value. Where honey is used, the baked goods do not get dry and hard, and that last used is really better and more moist than when first baked. In any recipe that calls for New Orleans molasses, honey can be substituted, and is much better and more wholesome. I substitute honey molasses in mince pies, and find they are much nicer.

PUMPKIN PIES.

Sifted pumpkin, 2 cups; sugar and honey, one cup each; flour, 4 tablespoonfuls; ginger, 2 teaspoonfuls; cinnamon, one teaspoonful. Add milk with all its cream—enough for two pies. Jersey milk is best.

[When making this pie, we modified the recipe as follows: we used only 2-3 cup sugar and made the addition of two eggs (four would be better, perhaps). We found that 4 cups of milk were required.—Ed.]

GINGER CAKE.

Honey, 2-3 cup; sugar, $\frac{1}{2}$ cup; one egg; butter-milk, one cup; flour, $1\frac{1}{4}$ teaspoonfuls; butter, $\frac{1}{2}$ cup; flour, $2\frac{1}{2}$ cups. Bake in a dripping-pan.

CREAM COOKIES.

Sugar, one cup; honey, $\frac{1}{2}$ cup; one egg; sour cream, one cup; melted butter, 1-3 cup; soda, one teaspoonful; baking-powder, one teaspoonful; flavor with nutmeg or vanilla; flour enough to roll nicely, but not too hard a dough, for that spoils them.

GINGER COOKIES.

Sugar, one cup; honey, 2-3 cup; one egg; sour cream, one cup; melted butter, $\frac{1}{2}$ cup; one teaspoonful each of soda and baking-powder; 2 teaspoonfuls of ginger; one of cinnamon; flour enough to roll.

Everett, O.

MRS. C. A. SMITH.

PLUM PUDDING.

Sifted flour, 3 cups; eggs, 3; sugar, 2-3 cup; honey, $\frac{1}{2}$ cup; milk, $\frac{1}{2}$ pint; finely chopped suet, one large cup; English currants and raisins, each one cup; mace, cloves, and cinnamon, $\frac{1}{2}$ teaspoonful each, or to taste; baking-powder, 3 teaspoonfuls. Steam 3 hours.

PUDDING SAUCE.

Sugar, 2 cups, dissolved in boiling water; $\frac{1}{2}$ pint cornstarch, 2 tablespoonfuls worked smooth in cold water, one cup, and stirred into the boiling sugar with nice butter the size of an egg. Boil until clear. Remove from the stove and add half a cup of honey. Flavor with vanilla.

Everett, O.

Mrs. C. A. SMITH.

Fruit cookies are made the same as the above by adding one cup of shortening, one cup of chopped raisins; $\frac{1}{4}$ teaspoonful of cinnamon and allspice; $\frac{1}{2}$ teaspoonful cloves and nutmeg; cream sugar and shortening, and proceed as above.

Colo, Iowa.

Mrs. OSCAR TRIPP.

INDIAN-MEAL PUDDING.

Scald 2 quarts of sweet skim milk; add 2 cups of corn meal. Remove it from the stove, and add $\frac{1}{2}$ pound honey; $\frac{1}{2}$ cup raisins; one egg; butter the size of an egg; 2 teaspoonfuls of cinnamon; one teaspoonful of salt. Bake two hours. Stir it up every half-hour until done.

S. Shifsbury, Vt. Mrs. GEO. E. MATTISON.

HONEY YEAST.

One pint plain potato water; one tablespoonful honey; 2 tablespoonfuls yeast. Set in a warm place, and in a few minutes it will be up and ready to mix with or to be set away, and it will keep many days in a cool place.

In fact, the yeast-plant will act much more readily in yeast sweetened with honey, and keeps a much longer time than when sweetened with any kind of sugar.

Kanab, Utah.

Mrs. ISRAEL HEATON.

HONEY COOKIES.

Blend $\frac{1}{4}$ cup honey, one teaspoonful butter; one egg beaten light; $\frac{1}{2}$ teaspoonful baking-powder; pinch of salt; flour to make a stiff drop in buttered tins. Bake in a slow oven.

CHOCOLATE HONEY TAFFY.

One cup strained honey; 1-3 cup sugar; one piece of chocolate an inch square. Boil until it makes a soft ball in cold water. Add one teaspoonful vanilla. Put into a buttered dish to cool. Pull until light.

PLAIN HONEY TAFFY.

Two cups honey; $\frac{1}{2}$ cup sugar. Boil until it makes a soft ball in cold water. Add one teaspoonful vanilla. Put in a buttered dish to cool, and pull until light. If the pan that the honey taffy is cooked in is buttered around the top the honey will not boil over on the stove.

HONEY JELLY.

To one cup fruit-juice add one cup honey. Boil from 15 to 20 minutes. [We find that one must be careful in the boiling, otherwise the jelly will have a slight burnt-honey taste.—ED.]

Wheatland, Wyo.

BARBARA E. HARTER.

WEDDING CAKE.

One cup each of extracted honey, butter, New Orleans molasses; 3 eggs well beaten; $\frac{1}{2}$ cup strong coffee; one cup buttermilk; 2 teaspoonfuls soda dissolved in 1-3 cup boiling water; one grated nutmeg; 2 teaspoonfuls cinnamon; one teaspoonful cloves; one cup strawberry preserves; two pounds raisins, seeded; 2 lbs. currants; $\frac{1}{2}$ lb. citron; $\frac{1}{2}$ lb. candied lemon peel; $\frac{1}{2}$ lb. candied orange peel; 6 cups flour. Mix in order given. Bake one hour.

Mankato, Minn.

Mrs. W. W. RUSSELL.

HONEY SANDWICH CAKE.

Take $1\frac{1}{2}$ cups flour; one cup honey; 2 eggs; 2 oz. butter; $1\frac{1}{2}$ teaspoonfuls baking-powder; one teaspoonful of cinnamon, cream, butter, and honey; sift in half the flour; add the eggs, beaten up; also the remaining flour and cinnamon. When ready for the oven, add the baking-powder. Bake in two layers; and, when cold, spread granulated honey between them. Bake each layer 25 minutes in a moderate oven.

Mrs. A. S. ASHTON.

Beauharnois, Quebec, Canada.

HONEY HERMITS.

Take 1-3 cupful of butter, 1 1-3 cupfuls extracted honey, $\frac{1}{2}$ cupful milk, 2 eggs, 2 level teaspoonfuls baking-powder, $\frac{1}{2}$ level teaspoonful salt, one cupful raisins, chopped; $\frac{1}{2}$ teaspoonful nutmeg and cinnamon; about $2\frac{1}{4}$ cupfuls of flour. Melt the butter; add the honey and beaten eggs; mix, add salt, spice, milk, baking-powder, flour (gradually), and beat well. Stir in raisins, floured. Drop from a teaspoon in small rounds on a buttered tin. Bake in a quick oven until brown.

HONEY CUSTARD.

Take 4 eggs, well beaten; one cupful extracted honey; 4 cupfuls sweet milk. Mix thoroughly; sprinkle nutmeg on top, and bake 30 minutes. Number served, 9 persons.

Chippewa Falls, Wis.

Mrs. JOHN SHAFER.



Ginger drop cakes. Recipe by M. I. Jeffrey.

GINGER DROP CAKES.

One cup each of dark honey, sugar, and lard; $\frac{3}{4}$ cup sweet milk; one egg; one tablespoonful ginger; $\frac{1}{2}$ teaspoonful salt; one teaspoonful (rounded) soda in a little hot water. Flour to make the batter stiff enough to drop from spoon.

Bethesda, O.

M. I. JEFFREY.

FRUIT SALAD DRESSING.

Yolks of two eggs; $\frac{1}{2}$ cup honey; 2 tablespoonfuls flour; one tablespoonful sugar; $\frac{1}{2}$ cup cream whipped. Mix flour and sugar; stir in honey and juice of two lemons.

Fleming, Ohio.

Mrs. WM. JONES.

HONEY CANDY.

Take 2 cups extracted honey; one cup white sugar; 3 tablespoonfuls water; stir all together. Boil until it will harden when dropped in cold water. Turn out into buttered tin to cool partly. Then pull like molasses candy.

HONEY COOKIES.

One egg, one cup sour cream; $\frac{1}{2}$ cup sugar; one cup extracted honey; 3 tablespoonfuls butter; one teaspoonful cream tartar; one teaspoonful soda. Add flour enough to roll out and handle nicely to make them soft. Bake in a moderate oven.

SUBSCRIBER.

HONEY APPLE MARMALADE.

Cook tart apples until smooth; add 1 lb. of honey to 2 lbs. of fruit. Cook until about like cake batter. Then put into crocks or jars without sealing. It will cut out in a few weeks.

POPCORN BALLS.

Pop a few ears of popcorn, and have ready in large dish. Boil a quart of honey until it will crack. Let it partly cool; then pour over a dish of popcorn, and make into balls.

Laurel Springs, N. C. MRS. J. T. REEVES.

GINGERBREAD.

Take 3 eggs; one cup sugar; one cup butter; one cup honey; one cup sour milk; 3 cups flour; 2 heaping teaspoonfuls of ginger; 2 teaspoonfuls of cinnamon; one teaspoonful of cloves if you like; one teaspoonful of soda.

Sayers, Tex. MRS. ANNIE WOODWARD.

HONEY-DROP COOKIES.

Beat together 2 eggs and one cup of honey, $\frac{1}{2}$ cup of butter, $\frac{1}{2}$ cups of flour, one teaspoonful baking-powder; $1\frac{1}{2}$ teaspoonfuls caraway seeds. Drop with a spoon in a butter-tin. Bake till brown.

HONEY WAFFLES.

Cream together one egg well beaten, 2-3 cup of butter, one cup of honey, $1\frac{1}{2}$ teaspoonfuls of baking-powder, one tablespoonful vanilla; flour to make quite stiff. Roll thin. Bake brown.

North Ferrisburg, Vt. MRS. A. C. PALMER.

HONEY ICE CREAM.

One quart of fresh cream; one cup honey. Mix well, and freeze. No flavoring is required—delicious.

State River, Ont., Can. JAMES M. MUNRO.

TOMATO PRESERVES.

Take 3 lbs. honey, 6 of tomatoes, and cook.

Stanton, N. D. MRS. M. M. OLDS.

HONEY VINEGAR.

I find that honey makes excellent vinegar. I usually use the water I dip my capping-knife in, which makes it sweet enough. If the water is boiled, there is no difficulty in making vinegar in a short time if you have a good vinegar body, sometimes known as "mother," to start it.

HONEY YEAST.

Save a start of fresh potato yeast; stir it thick with honey. I usually save part of a teacupful of the old-fashioned potato yeast, and stir in honey enough to make a syrup. This will keep sweet for days in warm weather, and comes in very handy in warm weather when yeast cakes cannot be obtained.

PLUM AND CHERRY PRESERVES.

I find, also, in using sour plums for preserves it is better than sugar, using 1 lb. of plums to one of honey. Let the honey come to a boil, then put the fruit in and boil hard. Skim when needed, till done.

Wild-ground-cherry preserves are nice made the same way. Many people prefer the honey flavor to that of sugar.

HONELY MINCEMEAT.

Honey used in mincemeat is preferable to sugar, and I like it better than molasses with any recipe I ever used. Take one gallon of fresh meat, chopped fine; one gallon apples peeled, cored, and chopped fine; 1 lb. raisins; 1 lb. of currants; cinnamon to taste; black pepper to taste; a few cloves and allspice; one quart of vinegar, if good and sour (more if not); honey enough to make it as sweet as desired. I make any amount of this late in the fall, and fill what empty fruit-jars I have; and it is always ready for use as long as it lasts. The jars do not need to be sealed.

CHOW-CHOW.

One gallon salt cucumbers; $\frac{1}{2}$ gallon green tomatoes; $\frac{1}{2}$ gallon cabbage; $\frac{1}{4}$ gallon strong winter onions (measured after chopping). I usually run all separate through a food-chopper, using the coarsest knife, then mix them and let them stand over night. In the morning, place them in a colander and let drain until all the juice has run off. Place in a kettle (granite ware preferred); cover with vinegar. Let it come to a boil; add tumeric, mustard, black pepper, cinnamon, allspice, cloves to taste. Add a pint of honey, and boil an hour. Place it in a jar or small keg, with a cloth, board, and weight, to keep the vegetables under the vinegar. Do not cover with a weight till the chow is cool. Made in this way in the fall it will keep till warm weather. Then scald and place in fruit-jars and seal for summer use.

If fresh cucumbers were used, sprinkle a handful of salt over the vegetables and let it stand.

HONEY COOKIES.

Take 3 eggs, well beaten; $\frac{1}{2}$ lb. of butter or other shortening; one pint of honey; lemon, or nutmeg to flavor; one small cup of milk; stir all together. Two teaspoonfuls of baking-powder; flour or graham enough to make a nice dough. Roll thin and cut with a biscuit-cutter. Place in a buttered dripper, and cook in a hot oven. In using graham use $\frac{1}{2}$ flour.

Hankville, Utah.

MRS. J. H. NOYES.

EAST INDIAN PUDDING.

This is one of the most delicious desserts in which honey is used. To make it, soak three cupfuls of fine bread crumbs in two cupfuls of cold water for five minutes. Drain off the water and press the crumbs until they are almost dry; then mix thoroughly with one tablespoonful of butter, one-quarter of a teaspoonful of salt, five egg yolks, four tablespoonfuls of honey, one-half teaspoonful of powdered cinnamon and one-half cupful of raisins. When the ingredients have been well mixed add the beaten whites of the eggs flavored with one-half teaspoonful of grated lemon peel. Bake in an earthenware dish for twenty-five minutes.—*Courtesy Mother's Magazine.*

HONEY CORNBREAD.

Thoroughly mix two pounds of cornmeal and one-quarter pound of flour and add four cupfuls of boiling water. Stir briskly for three minutes; set aside and to two well-beaten eggs add two teaspoonfuls of honey, two teaspoonfuls of salt, one tablespoonful of melted butter, one and one-half cupfuls of lukewarm yeast mixture. When thoroughly mixed stir into the flour and meal and continue the stirring for half an hour. Pour into a well-greased, deep baking pan, cover with a piece of paper and set in a warm place for two hours to rise. Then remove the paper and bake in a moderate oven until the top is a golden brown. This bread should be served hot, but any that is left over can be made as good as when fresh by reheating in the oven.—*Courtesy Mother's Magazine.*

HONEY RICE PUDDING.

Wash and carefully clean one-half cupful of rice. Put in a deep baking-dish and stir in one and one-half cupfuls of milk, four tablespoonfuls of honey, one-half teaspoonful of salt and one tablespoonful of finely chopped lemon peel. Bake in a moderate oven for two hours. Stir frequently during the first hour and a half of baking. Serve cold with milk or cream.—*Courtesy Mother's Magazine.*

BREAD PUDDING.

Toast very slightly six slices of stale bread. Cut each slice into six small squares. Butter the squares and with them cover the bottom of a well-greased baking dish. Sprinkle in a few raisins and dust lightly with cinnamon. Put in another layer of

bread and more raisins and cinnamon and continue until all of the bread is used up. Make a custard of one cupful of milk, three tablespoonfuls of honey, and a pinch of salt. Bring to the boiling-point in a double boiler and stir in two well-beaten eggs. Remove from fire and continue stirring until cool. Pour the custard over the bread and bake in a moderate oven for half an hour.—Courtesy *Mother's Magazine*.

HONEY TAPIOCA.

Into a double boiler put two tablespoonfuls of fine tapioca and one cupful of milk. Cook until the tapioca is transparent, stirring constantly. Then add the yolks of two eggs, well beaten and sweetened with two tablespoonfuls of honey, and seasoned with one-quarter of a teaspoonful of salt. Stir the mixture until it has thickened; then add the beaten whites of the eggs and continue the stirring for three minutes longer. Remove from the fire and when cool stir in one teaspoonful of vanilla extract. Serve cold.—Courtesy *Mother's Magazine*.

EGGLESS CAKE.

One cup honey, $\frac{1}{2}$ cup sugar; $\frac{1}{2}$ cup butter; one teaspoonful saleratus; one teaspoonful ginger; flour. Dissolve the saleratus in a little water, and add flour enough to thicken.

Willowemoc, N. Y. MRS. MARVIN S. STEWART.

PLUM BUTTER.

Two quarts of plums; 3 cups of extracted honey; or two of honey and one of sugar, if you like. Very good.

Columbus, Ohio. MRS. B. F. FRAVEL.

HONEY-CURED MEAT.

In attempting to apply a dry "sugar cure" to meat we always experienced this difficulty: When meat has lain long enough for all the animal heat to get out, the surface has a firm dry glaze of tissue to which it is very difficult to get any dry mixture to stick. Even where the salt is "piled on" it often fails to "connect" with the meat under the glaze. Somewhere I got the suggestion to use New Orleans molasses instead of sugar, and we tried it one year with good results; but the next butchering time found me with no molasses on hand, but plenty of honey; and as I had "read in the books" of the preservative effect of honey I decided to "try it on the hog." Since that time we have never changed our "process," and never had a single piece of meat that was not A1. I have had it "sampled" at farmers' institutes, and by visitors at my home, and the verdict always is: "Fine—best I ever tasted," etc. Here is the whole process:

Let meat get thoroughly cooled out, but not frozen. Trim shoulders so there will be no "flap" to hang against the leg piece. Take one piece at a time in a dishpan, and apply a coating of honey. This may be done either with the hand or a swab; but care should be taken to rub it into every part of the surface, skin as well as flesh side, and also well in around the bone at the hock end (we generally saw off about four inches of the shank and use it while it's fresh). The pieces are then handed to another, who applies as much of the following mixture as will stick to the honey: 5 lbs. salt; 2 oz. black pepper; 1 oz. cayenne pepper. Saltpeter may be added if liked, but we do not like it nor consider it wholesome.

Generally with us at the end of about three weeks it may then be hung and smoked, and that is all there is to it; but with very large meat, or if some pieces show "fresh-looking" places, it gets a second application. This is seldom necessary or desirable in this climate, as the meat is apt to get too much salt to taste good; but in a more humid climate it would probably be well to give a second application to all but one or two pieces. If they keep "just as well" you will know it is not necessary for you.

Last spring we put down a barrel of "corned beef," the pickle for which was made with salt, honey, and pepper as above, and we know that it is the finest kind of eating. Strips for dried beef were also dipped in this pickle while boiling for about ten minutes, and then hung up to dry.

North Platte, Neb.

LOUIS MACFAY.

GINGERBREAD.

One cup of honey and one of shortening; $\frac{1}{2}$ cup sour milk; one teaspoonful soda; one teaspoonful of ginger, and enough flour to roll out nicely. When done, take the white of one egg and make a frosting.

Fayette, Ia.

H. B. MORRISON.

Mrs. A. H. S., Vienna, Va.—We use honey to make Amasa Colony honey cookies, as follows: Let one pint of honey (extracted) come to a boil; let cool a little, then add 2 well-beaten eggs, $\frac{1}{2}$ pound of sugar, $\frac{1}{2}$ pound of almonds or other nuts, 10 cents' worth of citron chopped fine, 1 teaspoonful of cinnamon, $\frac{1}{2}$ teaspoonful of cloves, $1\frac{1}{2}$ even tablespoonfuls saleratus; stir thoroughly and add enough flour to make a stiff dough. Cut in fancy shapes and bake in a moderate oven; frost if desired. If the above recipe be carefully followed, I am sure it will be found satisfactory.—Courtesy *Practical Farmer*

HONEY BREAKFAST TOAST.

Beat 1 egg until light, add a pinch of salt, 2 tablespoonfuls of honey and 1 cupful of milk. Into this dip half slices of stale bread; brown quickly on both sides in hot butter or oil; serve with butter or honey.—Courtesy *Practical Farmer*.

GINGERBREAD NUTS.

Put 1 pound of brown sugar, 1 pound honey and grated rind of half a lemon in a saucepan over the fire and let it simmer well together. Remove from fire, add $\frac{1}{4}$ pound of butter, 1 ounce of ginger, 1 teaspoonful of soda, and 2 pounds of flour; roll thin, cut, and bake about 20 minutes in a slow oven.—Courtesy *Practical Farmer*.

HONEY CARAWAY LOAF CAKE.

Cream $\frac{1}{2}$ cupful of butter, add $\frac{1}{2}$ cupful each of sugar and honey, 2 well-beaten eggs, 2 cupfuls of flour sifted with 1 level teaspoonful of baking-powder and 1 teaspoonful of caraway seeds. Pour into a buttered shallow loaf-pan and bake about 25 minutes.—Courtesy *Practical Farmer*.

HONEY ANGEL CAKE.

Sift $1\frac{1}{2}$ cupfuls of flour four times, add 1 teaspoonful of cream of tartar, and sift again. Beat the whites of 11 eggs until stiff, add $1\frac{1}{2}$ cupfuls of white honey, beat lightly, then add the flour. Do not stop beating until you put in the pan. Bake in a moderate oven.—Courtesy *Practical Farmer*.

SPICED HONEY CAKES.

Two coffee-cups of flour, two tablespoonfuls of butter; one teaspoonful of ginger; $\frac{1}{2}$ teaspoonful of cinnamon; one cup of honey. Salt; stir all together, add last thing one cup of boiling water poured on one heaping teaspoonful of soda.

Chenango Forks, N. Y. MRS. E. W. LANTZ.

[The cake that we made with this recipe seemed, for some reason, to be rather heavy. We would suggest that $2\frac{1}{4}$ cups of flour be used or else less hot water, and that one egg be included, beaten separately.—Ed.]

HONEY-GEMS.

Two quarts flour, three tablespoonfuls melted lard, three-quarters pint honey, one-half pint molasses, four heaping teaspoonfuls brown sugar, one and a half level tablespoonfuls soda, one level teaspoonful

salt, one-third pint water, one-half teaspoonful extract vanilla.—From Bulletin 184, Ontario Department of Agriculture.

CORN BREAD.

Take 2 cups corn meal; one egg; one cup sour milk; $\frac{1}{2}$ teaspoonful soda; one teaspoonful baking-powder; $\frac{1}{2}$ spoonful salt; 2 tablespoonfuls honey. Mix with water for desired consistency.

Greensburg, La.

E. C. DAVIS.

HONEY WITH FRESH FRUITS.

There is a wide field for the use of honey in connection with fresh fruits. Fruits which are naturally rather tart and lacking in rich flavor are greatly improved and become very palatable when eaten at table with honey—possibly excepting buckwheat honey.

Fresh currants make a fine relish eaten with various roast meats. Honey should be poured lightly over the fruit in individual dishes, then mash the fruit with a fork; a little water may be added if desired. Sour cherries, pitted, may be used in the same fashion; also cut-up peaches—this is especially good when the peaches are rather tart; well-ripened gooseberries ditto. Strawberries, red raspberries, and blackberries come into the list too.

Of course, where good thick cream is available it is to be preferred; but in cities and towns, or where real cream is scarcely known, honey makes an excellent substitute or variation.

New Jersey.

B. KEEP.

HONEY VINEGAR.

Honey vinegar can be made by using one and one-half ounces of honey to one gallon of clear soft water. Store in a barrel or other vessel. It should be kept in a warm place, with an opening in the vessel to allow the air to circulate freely, thus causing it to come to perfection more quickly. At the end of the year it will be ready for use. Its keeping qualities are excellent, and the best of pickles can be made with it. There is, perhaps, nothing superior for using with vegetable and meat salads.—From Bulletin 184, Ontario Department of Agriculture.

HONEY PUFFBALLS.

Cream 3 tablespoonfuls of butter with $\frac{1}{2}$ cupful of sugar, add $\frac{1}{2}$ cupful of honey, 1 cupful of milk, 2 well-beaten eggs, a pinch of salt, 2 teaspoonfuls baking-powder sifted several times with 5 cupfuls of flour; flavor with cinnamon, nutmeg, or lemon, and drop by teaspoonfuls into very hot lard or oil. Brown well. These have been very popular for years and are well worth trying.

For the benefit of young cooks I would say that in frying these cakes or doughnuts, it is important to have the lard sufficiently hot before beginning. A good way to try it is by dropping in a crumb of bread. If this browns while you count sixty it is right. If only a few cakes are put in at a time, adding others at intervals of a few minutes, the temperature will be kept more even than if the pan is filled at once.—Courtesy *Practical Farmer*.

For cough or irritated throat, take 2 tablespoonfuls each of honey and glycerine, 1 tablespoonful of lemon juice, with a dash of ginger. Keep the mixture warm and use a little as needed.

A teaspoonful of heated honey will often quickly stop a cough and seems especially effective at night.—*Practical Farmer*.

HONEY FOR ASTHMA.

My husband was a sufferer from asthma, and was getting worse every year. We secured some bees, and he has used lots of honey since then. The first winter passed with hardly a trace of the asthma. We did not connect the cure with the honey until the spring of 1913, which was a failure in the early part, and we got along without honey. The asthma

commenced again until we went to using honey. Once since, in 1914, we bought some new molasses and he left off the honey for awhile, and then the asthma returned again.

If it was the honey that caused the cure it has been worth lots to us, as we were thinking seriously of going to another climate to see if it would benefit the asthma. To be sure, he will continue the remedy, as it is a very agreeable one; and if we should get out of honey the bees are liable to be "robbed."

Laurel Springs, N. C.

MRS. J. T. REEVES.

COUGH SYRUP.

Boil one quart of ripe wild cherries in one quart of water for one hour; then strain, and boil to one pint. Add $\frac{1}{2}$ pint of honey, and juice of 2 lemons; one teaspoonful of liquid tar; then let it come to a boil. Then bottle; $\frac{1}{2}$ teaspoonful for a dose.

Hartville, O.

MRS. J. A. KREIGHBAUM.

HONEY FOR BOILS.

Take a teaspoonful of honey and make a paste with wheat flour so it will adhere to a cloth. Put it on the boil like a poultice.

BEST COUGH REMEDY.

Get 1 oz. tincture of lobelia; $\frac{1}{4}$ oz. capsicum; 15 drops oil of wintergreen; $\frac{1}{2}$ pint pure honey. Put all into a pint can or bottle, and shake thoroughly. Dose: one teaspoonful three times a day, shaking well before using.

Huntington, Ind.

MRS. E. H. UPSON.

A COUGH REMEDY.

Take one ten-cent package each of the following in the crude state. Comfrey root, elecampane, boxwood, and hoarhound made into a decoction boiled. Add one quart of honey and boil into a syrup.

Bunceton, Mo.

J. R. MARVE.

RECIPE FOR CHRONIC COUGH.

One pint each of lemon juice, olive oil, and extracted honey; $\frac{1}{2}$ pint Jamaica rum (this may be left out); one fresh egg. Put the lemon juice into a fruit-jar or large-mouthed bottle; wash the egg, and drop it *unbroken* into the lemon juice. In about 24 hours the shell of the egg will be dissolved. Then remove the tough inside skin, being careful to leave every particle of the shell in the lemon juice. Beat all together; warm it enough to mix well, and bottle. Keep in a cool place. Dose, a teaspoonful frequently.

Phoenix, Ariz.

JENNIE C. GIBSON.

COUGH MEDICINE.

Three tablespoonfuls each of honey, lemon juice, and sugar (granulated); one tablespoonful of glycerin. Take occasionally during the day by the teaspoonful. One just before retiring will ease the throat wonderfully. With us this has proven invaluable with many hard colds, accompanied by severe coughing, and also for hoarseness.

Salisbury, Vt.

F. J. PEKISON.

COUGH MEDICINE.

Take 5 cents' worth each of boneset, sage, and horehound. Boil in 2 quarts of water. Strain through a cloth, and add one cup of honey, one cup of syrup (either maple or cane). Boil all together until it forms a thin syrup. Then add the juice of two lemons and one tablespoonful of castor oil. Take a spoonful as often as you feel like coughing.

Butler, Ind.

MRS. D. H. KNISELY.

REMEDY FOR SORE THROAT.

Sweeten strong sage tea with lots of honey, and in it drop a little carbolic acid. Use often as a wash or gargle. No harm if children swallow a little. In bad cases, first clean mouth and throat with a wash made from baking-soda. All washes should be warm.

C. L. W.

Heads of Grain from Different Fields



The Backlot Buzzer

A city man wrote in the other day, and wanted to know what to do about his bees; they were working on the goldenrod, and he was afraid they'd get the hay fever.

Swarming with Queen-cells; Was it the Season or Something Else?

I have been thinking for several days past of writing you or Dr. Miller in regard to the abnormal condition of bees in this locality (and I guess it's quite general from what I am able to learn from other localities). Yesterday, while talking with a neighbor in regard to the condition (and he did not seem to realize how much out of line they were), he urged me to write you, asking if you had ever had any experience like it, and what of the result and what to do.

We are all having swarming, some the last few weeks, and I haven't found any of them who have looked into the cause of it; but most of them have put the bees in new hives. I had a very strong colony swarm ten days ago. As the queen was clipped they were settling as I came to the yard. On looking through them very carefully I found no signs of a queen-cell—not even an embryo cell; but what I did find was stacks of young bees and ten frames of brood, some sealed from top to bottom, end to end, and plenty of eggs and larvae of all ages, but not one sealed cell of honey in the brood-chamber, nor any honey, so far as I could see. They may have had a little honey in the supers (there were two on the hive as they needed them for room), but I could not detect any there. I gave them two frames of sealed honey on which the bees died last winter. The next day I looked through

ten other colonies, finding practically the same condition. I gave five of them two frames each of sealed stores. Of course this is not advisable generally, on account of danger of starting robbing. I contracted the entrances for 48 hours, and there was no robbing; but there was some excitement in the yard.

Have you any records of such abnormal conditions at this time of year with very little honey coming in?

What is the remedy, and what is likely to be the results?

Urbana, O., Aug. 30.

O. J. JONES.

This was referred to Dr. C. C. Miller, who replies:

The bees seem to be always trying some new stunt to emphasize the fact that we don't know very much about them. I'm not sure that I ever experienced exactly the same thing you have had, but at least some of the things you have had. You describe the hives as unusually full of brood, and not a cell of sealed honey in the brood-chamber. This year my hives were crammed with brood and no sealed honey in the brood-chamber, only in my case there was honey in the supers, and this was kept up through the clover flow. I never saw just the same thing before, and don't know for certain how to account for there being no honey sealed in the brood-combs. Indeed, there was very little honey unsealed in the brood-chamber—no room for it. I guess that the unusual wet and cold had something to do with it. The colonies were very strong, and brood-rearing went right on in days when bees could not get out, leaving only enough cells for the unsealed honey, for you know that, no matter how much sealed honey may be present, some is always kept unsealed for immediate use.

It used to be counted the right thing for bees to send out a swarm as soon as the first queen-cell is sealed, and when left to themselves they generally follow that rule. But unusual conditions or the meddling of the beekeeper may cause them to disregard it. Persistent cutting-out of queen-cells may result in swarming with only eggs in queen-cells, if, indeed, there be that much preparation. The excitement of other bees swarming will sometimes make a colony swarm before its normal time. Why might not the excitement of a sudden flow of honey do the same thing? This year my bees had probably the same experience as yours. After having done a good bit at storing on clover, they did almost nothing all through August. Then in the first part of September came a flow when the bees worked with an excitement I never saw excelled, and seldom equaled. I don't know whether any of mine swarmed, but I know there were swarms in the neighborhood, and it is just possible that bees swarmed here with as little preparation as yours.

Marengo, Ill.

C. C. MILLER.

Does a Laying Queen ever Desert Her Hive and Go into Another?

Does a laying queen ever leave her hive, go to another hive, and be accepted? An incident happened in my apiary which I cannot account for otherwise. I removed the queen from a fairly strong colony which had been fed to get in shape for building cells. By its side was a three-frame nucleus with a young laying queen. No nectar had been coming in, and the nucleus was very short of honey. In eight days, when looking in the supposed queenless colony for cells, I was surprised to find a laying queen with brood in all stages, and

still more surprised when looking in the nucleus to find no queen or eggs, but capped queen-cells.

I am as sure as one can be that the strong colony was not superseding, and the queen they have is marked like the one formerly in the nucleus. Did the queen get discouraged with such small proceedings in the nucleus? or did some of the workers in the strong colony come over and offer her a better job?

If one confines the queen to an upper story, placing a comb super between it and the lower story in order to have cells built below, then when cells are removed can the super and excluder be removed without danger of the old queen being killed?

Odon, Ind.

W. H. BAIR.

[Cases of this kind have been reported, but they are rare. It is not uncommon to find the bees gradually deserting a queenless hive, and going into another near by where there is a queen; but it is very seldom indeed where we find a *laying queen* swapping homes. The incident here reported may be accounted for in two ways: First, the nucleus may have swarmed out, as nuclei often do when short of stores; returned, and, instead of going back to the old hive, went into a stronger colony. Second, the bees in the nucleus may have attempted to ball the queen. Sometimes a queen under those conditions will run if she can elude her captors, and escape at the entrance, fly about for a time, and then return to her old hive near by.

A *virgin* queen will very often by mistake go into the wrong hive.

As to your last paragraph, we see no reason why you could not remove the excluder without danger to the queen. The colony odor in the lower and upper part of the hive would be the same; and unless there were virgins above, the old queen would be accepted below.—ED.]

Some Questions on Moving Bees

1. In preparing full colonies for a 300-mile shipment should there be a notched stick placed on the bottom-board to keep the bottom-bars from swinging sidewise?

2. Would anything be gained if the queen were caged ten days previous to shipment, and then liberated after shipment?

3. How much honey should be left in an eight-frame hive?

4. How much air space should be given above the frames?

5. Would an empty comb-honey super be all right?

6. Should I take water in the car and sprinkle the bees whenever they get uneasy?

Clarkston, Mich.

W. L. LOVEJOY.

[1. If you have loose-hanging frames such an arrangement is not only desirable but necessary. With self-spaced frames, either closed end or of the Hoffman type, it would not be needed.

2. We hardly think this would pay you, for under ordinary circumstances your sealed brood would not suffer on the journey, and in some cases the unsealed brood is all right also. Caging the queen would simply put the colony back, and you would have your labor of finding queens, caging them, releasing them, etc., besides.

3. It depends on the size of the colony and on the age of the combs. There is not as much danger, of course, of comb breakage if the combs are old and tough, and in that event the danger in having them too heavy with honey would not be as great. However, the rule is to send no more honey than the bees will require on the journey, in order to reduce weight and to reduce to the smallest possible amount the danger of breakage.

4. We advise tacking on a framework the size of the hive made of one-inch material, which is covered

with a heavy screen. This should go above and below. The two screens provide two inches additional space, and under ordinary circumstances this is enough.

5. There would be no great objections to the empty super except that it would take more room in the car, and we do not know that it would be any better than the one-inch space afforded by the screens mentioned above.

6. Yes, in hot weather you will need a good deal of water.—ED.]

More about Pollen in Sections

In editorial comment, page 82, Jan. 15, I note what is said about Mr. Sprout's trouble with pollen in sections. He has used queen-excluders, but they are not pollen-excluders. The editor refers to a comb or combs at the side of the brood-chamber as a means of holding it down. It occurs in colonies that do not swarm as well as in those that do, as these colonies are normal and have certainly all the combs in the brood-chamber. The pollen still goes up. He also speaks of empty cells. Tell us how to keep them empty. I suppose he advises going over the yard every other day and giving empty combs. This would be fun.

He also speaks of bees being creatures of habit, and says they must not be allowed to get the habit of placing pollen in sections. Do you suppose that the bees that place pollen in the sections this year will be there to place some there next year? Your contention might be all right for just one season, but this is an every-year occurrence.

Akron, N. Y., Feb. 15.

WM. F. VOLLMER.

[We give it up. Who has had practical experience in preventing this very annoying trouble?—ED.]

The Cover Question

I have seen and used many kinds of covers for hives, but have always found that many, if not all, had their weak points. Some absorb water, and leak; others need painting too often, which is an expense as well as a labor; others rot out too quick, and still others get so hot on a real hot day that the frames of honey will melt down.

The new cover which I am using now has none of the above weak points. It never needs painting; will wear as long as the hives themselves; will not leak, and is the coolest cover I have ever found. What is it? It is aluminum. Some will say that it is too expensive; but if you will get it as thin as taggers' tin you will find that it is not expensive.

Simply order the aluminum in sheets a little larger than your old cover, and turn down the edges and nail them down, overlapping at each side and end to shed the water. Put this aluminum cover on a hive out in the sun with some other kind of hive-cover in reach; and after letting the same stand in the sun for an hour, place one hand on the aluminum cover and the other on your old cover, and you will find that, while the aluminum cover is hardly warm, the other cover will almost burn your hand. We all know that aluminum will not rust. Remember, do not paint this cover, and get it as thin as taggers' tin. Try this, friends, and be convinced and do away with paint and rotten covers.

Morgan, Ky.

J. E. JORDAN.

Aster Stores for Wintering

My bees are wintered on a combination consisting mostly of aster honey and sugar syrup. I find them to be good winter food. I do not have goldenrod. This year I will remove the supers before the aster flow in order to compel the bees to store their honey in the brood-chamber.

Lititz, Pa.

ELMER S. SNAVELY.

A. I. Root

OUR HOMES

Editor

The harvest is plenteous, but the laborers are few.
—MATTH. 9:37.

Behold the Lamb of God that taketh away the sin of the world.—JOHN 1:29.

He which converteth the sinner from the error of his way shall save a soul from death, and shall hide a multitude of sins.—JAMES 5:20.

"THE REMAKING AND MENDING OF MEN."

At our Medina Chautauqua this summer, Chaplain Kiplinger, of the Indiana State Prison, gave about the best talk in favor of prohibition that I ever heard. He had a large and appreciative audience, for which I thanked God; but it seems to me that the facts and figures he gave should be held up before the people, not only for the state of Ohio but throughout the United States and the whole wide world.

Perhaps I was specially prepared or fitted to take in the significance of that talk. I have told you in past years several times about my work for several years here in our Medina jail, especially when we had open saloons running in full blast in our town. Let me go over it briefly just to bring to mind one particular instance.

Shortly after my conversion I found my way into our county jail. There were, perhaps, half a dozen bad and even wicked men and boys there, shut up with nothing to do but to chew tobacco, play cards, and indulge in the worst profanity and obscenity I ever heard. When I tried in my feeble way to hold up before them the gospel of Christ Jesus they turned on me until I was apparently "snowed under." But I kept coming and pleading with them, not only on Sunday afternoon but between times. When they became tired of their confinement they gradually began to be glad to see me, because it was a sort of diversion to them. I got them to read good books, and taught them to sing some gospel hymns; and as they dropped out one after another they certainly had made some progress out of their evil ways. I met them occasionally years afterward, and almost always with a good report from the seed that was sown in their hearts years before.

After they had all left, the ring leader (who had already served a term in the penitentiary, and was on his way the second time for robbery), I had a chance to get well acquainted with him. In fact, he became so lonesome after many weeks of confinement that he was glad to listen to and talk with anybody.* You will recall,

* After Fred and I became "good friends" I found he was left at an early age without either father or mother, and was "farmed out" from one

perhaps, his coming out of our Medina jail, as the scripture puts it, "clothed and in his right mind." In less than one year he was teaching a class in Sunday-school; and when he got a position as conductor on a freight train he had his caboose papered inside with scripture texts instead of vile pictures and writing, that used to be the custom in years gone by.

The reason I mention this just now is to hold up before you the fact that almost any criminal may be made a good man, or certainly a better man, if some good Christian could sit down by his side, get well acquainted with him, win his confidence, and lend a helping hand in every way in his power. When a man first gets into prison he is often defiant and ugly; but after days and weeks of confinement he sobers down and is ready to talk. What is wanted is good Christian men and women who are willing to give their ability and time to such work. Surely, as we have it in our text, "The harvest is plenteous, but the laborers are few."

Some years ago it was my privilege to listen to that grand good woman, one of God's choice jewels, Mrs. Maude Ballington Booth. The whole wide world knows what she has done for men and boys in the prisons of our land. Well, Chaplain Kiplinger spoke for over an hour. He gave incident after incident showing how he finally reclaimed men who seemed for quite a time hopeless; but, may God be praised, he almost invariably won out in the end. There were such crowds gathered about

farmer to another, and I fear these farmers were more alert in making the boy pay expenses than they were in making a good boy and a good man. As a consequence he became soured toward everybody. He told me that "The world has been 'agin me,' and I am 'agin' the world." That was when I first saw him; and when he declared "They may carry my dead body back to that 'old pen,' but they will never carry me alive," he was in a desperate frame of mind. When I succeeded in making him comprehend the meaning of the text, "Love ye your enemies, do good to them that hate you," he said, "Mr. Root, that may be all right. I do not dispute it, mind you; but it goes awfully 'agin the grain.'" After days and weeks of pleading he finally one day sent word that he wanted to see me. He outlined what a change it would be for him to undertake to be a disciple of the lowly Nazarene, and finally said, "Well, Mr. Root, I do not make any promise, mind you. I do not know how I shall make out *trying* to be a Christian; but I will make a trial of it. I will do the best I can." Then at my suggestion he knelt down on the stone floor of that old jail and in his own way with broken language he said, "God, be merciful to me, a sinner." What a change came over his face from that time onward! The hard, defiant look was gone. A happy smile lit up his manly face in a manner I had never seen before; and every time we met after that he told me of new victories he had met with the help of the little prayer I taught him—"Lord, help."

him as he ended his talk that I was unable to see him; but after I reached home I wrote him as follows:

My good friend, it was my great pleasure, yesterday, to listen to your talk here in Medina at our Chautauqua meeting. I am enclosing a few leaves of our journal for August 1, to let you know what we are trying to do in the temperance crusade to make Ohio dry.

Now the facts you gave us in regard to intemperance and the state prison are, it seems to me, more important than anything either our journal or the *American Issue* or any other temperance periodicals have gotten hold of. Possibly what you stated has been already in print. If so, will you kindly get it for me, or tell me where I can get it? If it has not been in print I will gladly pay you for your time and trouble in giving me the part of the talk, especially of statistics and figures in regard to intemperance. As I am anxious to know as soon as possible if I can get it for use in our journal, I inclose an addressed postal.

May God bless and strengthen you for what you have already done, and that you may continue the work far into the future. Perhaps I might add that, when I was a young man, for many years I visited our jails here in Medina. That was when we had open saloons in our town, and I had quite a class every Sunday; and it was my great privilege to see quite a number converted to the Lord Jesus Christ, and now filling places of trust and responsibility. You know what this means to a Christian worker.

Once more, may God bless and sustain you.

Your old friend,

A. I. Root.

About Sept. 1 I received the following, evidently taken down by some stenographer from one of his lectures:

FROM "THE REMAKING AND MENDING OF MEN,"
By C. L. Kiplinger, Chaplain Indiana State Prison.

Speaking of the parole law and its proven results the speaker said:

The information and advice upon which a parole is granted is gathered for the Parole Board almost from the day the prisoner reaches the institution. The board, considering the release of a prisoner, has before it the full case record of the prisoner's offense; the prisoner's statement; the statement of the trial judge and prosecutor; letters of reference as to the past history, habits, and reputation of the applicant for parole; and, in many cases, the report of a personal investigation made by the state agent.

If a parole is granted, the prisoner must have first of all, a suitable place of employment. This is found or investigated by the state agent. The employer must know that the man he takes comes from prison, be willing to take him notwithstanding, and to take a friendly interest in him. The prisoner must not use intoxicating liquor; he must not frequent questionable places nor associate with questionable characters; he must make each month a written statement of earnings, expenditures, and savings and general conduct, which report must be signed by his employer, vouching for it as correct. The willful violation of one or all of these conditions constitutes a violation of parole for which the man will be returned to prison.

In seventeen years over 8000 men have been paroled from Indiana institutions. Of this great number 75 per cent have kept the conditions of parole, and earned final discharge. In the old days—under the straight-sentence regime, with men automatically discharged after having served a stated amount of time, 70 per cent of all men so re-

leased got back into prison within one year for committing some new crime.

The state should itself, by all means, supervise its paroled prisoners. Its agents should know where every paroled man is located, and visit him frequently to advise, encourage, or admonish as the case may need. The paroled man should be as much in the custody of the state as when behind the walls of the prison. Only such an administration of the parole law can make it fully effective, and prevent the law itself from falling into disrepute.

Speaking of liquor and crime, the lecturer said in part:

1. I know that 83.73 per cent of our present prison population are moderate or excessive users of liquor, and trace their crime entirely or indirectly to liquor.

2. To give figures: When our population was 1130 men, 946 of them were either drinking or drunken when their crimes were committed; or their crimes were planned in saloons; or, led away from former standards by drink, they became careless of morals and of law, and were ready to plan or be led into deeds which the law forbids, and for which human society demands a penalty.

3. I know that 96 per cent of the men serving life sentences in the Indiana state prison for murder, rape of child, and under the national criminal act, trace their crimes directly to liquor as the prime or contributing cause.

4. A careful examination into the past history of each of 226 men serving life sentences revealed the fact that 212 of the 226 crimes were traceable to liquor. Except for liquor, 212 of 226 murderers now serving life sentences in prison might now be living at liberty, and free of the foul stain of murder.

5. I know that county option in Indiana did reduce the number of commitments to the prison, and that the facts revealed by a study of the commitments received in a year when 70 of the counties were dry and 22 were wet, are significant as to the effect it would have on crime in our state to abolish the saloon.

Of the 70 dry counties in the state, 27, or 38.5 per cent, sent no man to prison.

Of the 22 wet counties of the state, 3, or 14 per cent, sent no man to prison.

The 70 dry counties of the state during the year committed 92 men to prison.

The 22 wet counties of the state during that year committed 135 men to prison.

The population of the 70 dry counties was 1,597,263. The population of the 22 wet counties of the state was 928,995.

Yet the 22 wet counties containing only 29.6 per cent of the state's population, furnished 55.3 per cent of the commitments to prison.

The 22 wet counties furnished one prisoner for every 7432 of the population.

The 70 dry counties furnished only one person out of every 16,023 of the population.

In one period of six months we received at the prison 92 men. Of these 92 men, 86 came from wet counties and 6 from dry counties. One of the six was insane.

SOUTH CAROLINA DRY, MORE THAN TWO TO ONE.

For days and weeks I have been watching the outcome of the election (Sept. 14) in South Carolina. I told Mrs. Root it would have considerable effect on Ohio, and, in fact, more or less effect on every state that is waging a like war for righteousness. I prayed for South Carolina for days and weeks beforehand. I prayed the

day before election, and on election day; and I kept nervously watching for some intimation of the outcome. Not a word appeared next day in any of our daily papers; not a word the second or third day. I began to tell Mrs. Root that no news was good news, especially when it must come through the dailies that are on the wet side. Finally on Friday morning, Sept. 17, while I was at the Methodist parsonage a good lady informed me she saw something in the papers to the effect that South Carolina had gone dry, without any particulars.

I try to be charitable, dear friends, but I could not help thinking that the great dailies of our neighboring city of Cleveland would show a little more alacrity in giving us temperance news if it were not for the fact that every one of them carries beer and liquor advertisements, that would make it look strange if they uttered a word in the way of rejoicing over a temperance victory, especially at the opening of this mighty campaign here in Ohio. Finally my heart was made glad to find the following on the front page of the *American Issue*, in big letters:

SOUTH CAROLINA VOTES DRY

THE NINETEENTH STATE KNOCKS OUT SALOONS BY A VOTE OF MORE THAN TWO TO ONE.

Tuesday of this week South Carolina voted on state-wide prohibition, and the dries won by more than two to one. The nineteenth state to vote out John Barleycorn will become dry the first of next January. Fifteen of the forty-four counties were wet under the county dispensary system. Early returns indicate that all but one county, possibly two, gave dry majorities. The county containing the capital city of Columbia went dry with a whirl.

South Carolina points the way for Ohio. Let the Buckeye commonwealth become the twentieth state to outlaw the saloon.

Surely God's kingdom is coming.

Later.—The following has just come to hand, dated Columbia, S. C., Sept. 15. I copy it from the *Manatee River Journal*:

South Carolina yesterday adopted state-wide prohibition, to take effect January 1, 1916, according to almost complete unofficial returns gathered here. The vote, with nearly full returns from most of the counties, late last night stood

For prohibition, 33,104.

Against prohibition, 14,157.

The total vote, while well over that cast in most general elections in South Carolina, is far below the customary poll in Democratic primaries. From present indications it seems likely that the total will be in the neighborhood of 60,000.

Governor Manning, who was elected on a local-option platform, after learning the results of the vote, gave out a statement saying that, the people having spoken, he would do his utmost for the enforcement of the law, and would expect the support of all the citizens in his policy.

Of the thirty counties already dry under the local-option law, all gave varying majorities in favor of statewide prohibition, the margin being large in most cases. Only one of the counties now having dispensaries is certainly on the local-option side.

FLORIDA'S NEW TEMPERANCE LAW TO GO INTO EFFECT OCT. 1: SEE P. 474, JUNE 1.

About the time this number reaches you, Florida will be fully ready for law enforcement. If you are not already aware of it, the Davis law is ready to go into effect. See the following, just sent us by the Anti-saloon League of Florida:

FEDERAL JUDGE DECLARES FOR SMASHING THE SALOON.

My notion is that the saloon will have to go. I believe the time will come when the people will rise up and smash the saloon—at least as we have it today. The evidence in this case showed that the saloons were the center of nearly all the corruption in the election at Terre Haute.—FEDERAL JUDGE ANDERSON.

The Davis law will smash the saloon as it is.

Then the Davis law should be enforced, for it allows:

1. No drinks sold or given away—sales to be only in sealed packages.

2. No drinking—no package can be opened in the room where sold.

3. No screens, pictures, music, cards, tables, chairs, or gambling.

4. No loitering—"buy your package and go."

5. No selling to women, boys, drunken men, nor on credit.

6. No free lunch—no eatables at all; the "decoy" gone.

7. No social dram, no treating; profit gone; good by, saloon.

8. No back doors, no dark holes in wall, no back rooms.

9. No selling between 6 P. M. and 7 A. M. Think of it!—the saloon to be closed during the hours when nearly all profits are made.

Verily this law smashes the saloon "as we have it today."

Our next legislature will kill it altogether.

Therefore the Davis law should be enforced.

One hundred and forty-seven liquor-dealers in Jacksonville shall obey the law or else they will plunge Florida into a state of anarchy, holding Florida by the throat, saying, "You can't enforce your laws."

Even the lawyers of the liquor-dealers themselves say that the Davis law is constitutional, and can be enforced. But it is the old story, "The Whisky Rebellion."

Let us submit no longer to the rule of rum.

Unfurl the flag and enforce the laws. Let the people rule.

Rally to the help of the Anti-saloon League; and please, as you value our sacred cause, send a check or cash offering to help us pay the expenses of organizing and working committees in every wet city to enforce the Davis law.

We must work fast to get ready for October 1.

C. W. KINNE.

302 St. James Building, Jacksonville. Fla.

BARRING INTOXICANTS FROM THE INDIANS; WHY NOT DO IT FOR THE AFRICANS?

We clip the following from the *Sunday School Times*:

AFRICA'S HORRIBLE BAR-ROOM.

The following item from the *Boston American* illustrates a kind of news which appears every few weeks, and the handicap which we place in the way of Christian civilization while we send missionaries at great sacrifices to advance it. The item ran as follows: "The Estelle Krieger is taking out nearly 300,000 gallons of rum. The demand for rum in

the Dark Continent during the past few months has been unprecedented. The Charles Whittemore sailed June 12, and the schooner Orleans April 22. The three vessels will land nearly 700,000 gallons of the fluid at ports along the west coast of Africa." This is the trade that the Rev. Charles Satchell Morris has said "has turned the entire west coast of Africa into one long bar-room."

Years ago the United States saw fit to pass a law keeping intoxicants entirely away from the Indians. Why it is that a similar law has not been enacted in regard to the colored people, and especially the inhabitants of Africa, is a puzzle. Right in connection with this, from the *Sunday School Times* we make a clipping that also touches on alcohol as a *medicine*. Read it and ponder over it.

DRINK AND SLAVE TRADE IN AFRICA.

Dr. Fisch, for twenty-five years a medical missionary in the Gold Coast of East Africa, writing for one of the European journals, points out that the slave trade as formerly carried on cost the lives of hundreds of thousands, broke up families, and deprived them of liberty; but the injury that the drink traffic has done to the negroes is worse. This Gold Coast country has a favorable climate, and is wonderfully rich in vegetable and mineral products of many sorts; but as drinking has increased, the living conditions and vigor of the people have constantly declined. Negroes who are not drinkers easily recover from pneumonia; but the drinkers die of heart failure in spite of all that can be done. Tuberculosis, once a rare disease, now runs a rapidly fatal course. Degeneracy in the offspring of drinkers is shown not only by their lowered resistance to tuberculosis but by frequent loss by mothers of power to nourish their children, by carious teeth, by a special form of infantile paralysis, and by a considerable increase in idiocy and epilepsy, all of which were formerly rare or entirely unknown. The character of the people also is changing for the worse. Crime and immorality and disease are increasing, and the possibilities of spiritual uplift are being endangered. On the other hand, although the living conditions are much harder in the adjacent territory of the Togo, but where the liquor traffic is prohibited, the people are vigorous, muscular, amiable, and apparently free from degeneracy. "The alcohol trade poisons the race to its roots and menaces its future."

UTAH ON THE WATER-WAGON.

My father drank to all that drink calls for; but I had a Christian mother who stayed with us boys until the last, and not one of us drink or use it in any form. I am the oldest, 41, and am blessed with a good wife and five nice boys and one girl. We all enjoy good health, and are ready with our good clear minds and strength to fight the liquor and tobacco habits in any form to the last ditch. Since looking back on my boyhood days I often think of the liquor traffic as it was years ago, along the Ohio River and its small streams. Then there were but very few persons who would dare raise a voice against its use. But to-day I am blessed to see the time when very few will dare raise a voice for it. My mother's last prayer and talk to me about it was, "My son, I may never see the day, but I pray that you will, when a man will be ashamed to uphold its cause;" and, thank the good Lord, it is coming to pass.

We all call you here in our humble home "Daddy Root;" but I do not really think you can comprehend the temperance cause and its effect as well as a man who has seen some of the liquor men's worst

evils. I am hoping and praying that you and all good men and women will live to see the liquor and tobacco evil put out of the way to *stay*, and then may we be able to do better for those who are dearest to us.

Now, Mr. Root, I must tell you that, in the last twelve years, I have not heard twelve good old-fashioned sermons here in this part of the world. I almost envy you and a great many people who enjoy such blessings. When we get GLEANINGS we first turn to the Home department and read your writings first, and then read it from cover to cover. Nothing is left out.

Remember the mothers in this state can vote on these and every other cause that comes to a vote. Now, if we all will put our shoulder to the wheel and give one good lift, even if we do not lift the load, let us keep on until we do lift it. That is my motto, and I fully believe it is the motto of millions of good people; and so with all of our prayers and votes directed right we can do something for the cause of goodness.

Taft, Utah, Aug. 5.

W. J. JUSTICE.

SHALL THE LIQUOR BUSINESS PREVAIL AGAINST THE UNITED EFFORTS OF OUR SCHOOLS AND CHURCHES?

We clip the following from the Chicago *Advance*:

The saloon forces can never stand against a united attack of the army of Jesus Christ. When we cease to call on God we shall cease to advance. When the United States becomes a saloonless nation we shall have become the best-prepared nation on the face of the earth for war or peace. The multiplication of war munitions and equipment, and the increase of army and navy, will be likely to foment trouble and induce war.

Real preparedness is mental and moral rather than material. A saloonless nation is an invincible nation.

WHISKY AND WAR.

Farming Business hits both of these twin evils a tremendous clip at one blow as follows:

BOOZE IS NOT MEDICINE.

Booze is on its last legs, and they are shaky. The druggists have cleared their skirts of its dirty touch by refusing to include it in the list of drugs and medicines. Reliable druggists have not cared to handle whisky for some time, but thought they were compelled to as long as it was listed in the American drug list. In revising it the last time, however, the committee decided that the ancient fable of calling whisky "medicine" was no longer worth their support. Hence, they put the ban on whisky. The leading medical and scientific men of the world for some time had classed it as poison, and only a stimulant at its best. It was merely a stiff-necked form of hypocrisy to carry it in the drugstores as medicine any more. Now the booze supporters are without their main argument that whisky is something that doctors need in their work of saving human life.

As a stimulant and a poison, booze is still a winner. Jane Addams, after her return from Europe recently, where she visited all the monarchs of the warring nations, declared that officer after officer had told her that before a bayonet charge men were given big drinks of alcohol in the form of the various national concoctions in order to "fire them for the killing." Even in war, where men are expected to kill each other if they happen to be wearing different uniforms, they have to be poisoned to kill each other at close range. A bayonet charge

with the storming of trenches where men lock themselves together and clench their teeth and jab with the bayonets until they drop or there are no more moving bodies to jab, requires stimulants. Men must be robbed of their reason for a time to get them to butcher human beings at the ends of their gun-barrels. Such is the rating of booze.

431 MILES OF BREAD.

The value represented in the above heading is what the saloons must take in for beer in one county in Ohio in order to get back the money that they pay the state for the privilege of carrying on the saloons for one year. The *Akron Press* for Sept. 4 prints a copy of a banner that Miss Minnie Ellet is painting by hand to put up at county fairs and wherever they will do the most good. Below is their statement in regard to the matter.

TEMPERANCE WORKER PAINTS BARNS TO TAKE WHACK AT JOHN BARLEYCORN.

Old John Barleycorn had better take to the woods. Miss Minnie Ellet, of Springfield, is on his trail again.

Miss Ellet, who has taken many a solid whack at John, is out with a pictorial argument which she thinks is a staggering blow.

The reading below is painted on a huge banner with her own hands. And she is getting ready to display it where she believes it will do the most good.

Miss Ellet has lettered 19 banners, and they are to be presented to as many divisions of the W. C. T. U. in Summit Co.

"Where am I going to put the banners?" echoed Miss Ellet Thursday. "Why, I'm going to put them over the brewers' signs—hang them right over the signs of John Barleycorn."

And below is a copy of the "banner."

SUMMIT COUNTY'S LICENSE BILL.

206 equals number of saloons in county.
\$5 equals application fee of each saloon.
\$100 equals registration fee of each saloon.
\$1000 equals license fee of each saloon.
\$1105 equals total fees of each saloon.
\$227,630 equals total fees of 206 saloons.
4,552,600 equals schooners of beer the 206 saloons must sell to pay just license fees.

Who pays this bill?

One schooner of beer equals one loaf of bread.
4,552,600 schooners equals 431 miles of bread.
To pay just license in Ohio's 43 old wet counties, 11,209 miles of bread must be sacrificed.

Bread or beer?

For which will you vote?

The reason why Summit Co. has such a large number of saloons is because Akron, with a population of 115,000, largely foreigners, is its county-seat. But even that county, with its 206 saloons, *voted dry* a year ago.

OUR RECENT OHIO STATE FAIR.

It is refreshing to note that the *Ohio Farmer* feels very much as I do about the improvements recently inaugurated in regard to the Ohio State Fair. See the following, clipped from the *Farmer*:

Expositions are the registers of progress. The State Fair of this year presented strong contrasts with that of ten years ago. Automobiles, farm tractors, road-building machinery, silos and silo-filling machinery, and limestone-crushers and milking-machines are now very prominent. Then the activities of the state itself, the experiment station, the agricultural college, the industrial commission, the State Board of Health, the fish and game, and the dairy and food departments, the livestock and orchard inspection bureaus, made up a very large part of the exposition. This, together with the *absence of side shows*, gave the fair far more of the educational aspect. The only thing that seemed entirely out of harmony with the education idea was the fireworks. It is hard to understand why "attractions" should be employed at the fair any more than at the agricultural college to draw patronage. It is hard, too, to connect the race track with agricultural promotion or better citizenship. But it may be too idealistic to think of running a fair without a horse race. I hope to live long enough, however, to see it done.

The italics in the above I put in myself. Amen to the closing sentence!

The Ohio State Fair did not take in as much money as in former years; but what they lacked in money at the gate was made up in "treasure laid up in heaven" in the shape of thousands of boys and girls who were not demoralized by low-lived side-shows.

It seems but a few years ago when I saw on the grounds of the Ohio State Fair a long row of beer-kegs with great blocks of ice resting on them. Ice-cold beer was being dispensed alike to old and young, clear through from the beginning to the end of the fair. May the Lord be praised that not only are the kegs of beer a thing of the past, but that the fake beer literature of the "Ohio Temperance Union(?)" has also been put down and out.

NATIONAL APPLE DAY, TUESDAY, OCT. 19, AND THE WAR.

For years past I have been hoping and praying that something might occur to sidetrack and divert the attention of those engaged in the wicked war in Europe, and that the belligerents would come to their senses and realize the folly of their undertaking; and as, with God's guidance, a pebble from the brook, in the hands of David, slew the giant Goliath, is it not possible that just an *apple* (or a great *shipload* of apples) may, through God's guidance, do like service in regard to the war "giant" across the great waters.

Mr. R. J. Coyne, chairman of the Publicity Committee of the United States, sends us the following:

APPLES FOR SOLDIERS IN EUROPE.

"Last year they let several cargoes of toys and other similar articles go through to different countries, and I think these apples ought to be consider-

ed in the same light as other gifts which America has donated to the war-ridden countries."

A local apple-man who has interested himself in the matter, and who has figured out how it can be done, says: "It is a big proposition, and will require skillful handling; but it can be done. The value of the fruit alone would approximate about \$300,000 aboard ship at New York, for apples are worth considerably more than a year ago. Of course the expense of outfitting a vessel is a matter that has not been fully decided upon, but the fruit people have always been charitably disposed in cases like this, and they will help to find the means if assurances are given that the apples will reach proper hands. We understand that there are about 25,000,000 men actively engaged in the various armies and navies in the European war, and probably as many more indirectly involved. To give them all an American apple apiece would mean at least 50,000,000; and taking 500 apples to the barrel, which would be medium-sized fruit, we shall have to provide 100,000 barrels or 300,000 boxes, at the lowest estimate. At present the minimum market value of this fruit is \$3.00 a barrel. I figure the whole undertaking would cost not less than \$500,000; but when we stop to figure that every person in this country, no matter what his nationality may be, could easily lend a hand in the undertaking it is not such a difficult proposition as one might suppose."

Apple-men hope to have the European belligerents agree upon a one day armistice when the apples are distributed, and it is planned to get everything in readiness for the vessel to sail on National Apple Day, Oct. 19, so that the consignment may reach the various fighting zones and hospitals the early part of November when Europe's scant fruit supply will have been exhausted for this season.

Every soldier in the trenches and hospitals in Europe will be given an apple in the near future, if plans now being worked out by a committee of the apple trade throughout the United States are successful.

It is proposed to have a vessel take over a big cargo of apples to be distributed free under the auspices of the Red Cross, and efforts will be made to get President Wilson and Secretary of State Lansing to have the several warring governments permit safe passage for portions of the big consignment to the various fronts and hospitals where the fruit can be placed in the hands of the Red Cross for distribution, especially among the sick and wounded.

Apple growers and dealers who are endeavoring to send over the big consignment have learned that many of the fighting men are suffering because of lack of fruit juices, giving rise to scurvy and other disorders. Returning surgeons who have seen service in the European hospitals are said to approve heartily the plan to provide more fruit juices, not only among the wounded but also for the men in the trenches.

"We are working on this undertaking purely from humanitarian motives," said one of the committee who is a leading wholesale apple distributor, today. "It's going to cost a lot of money for the fruit alone, and we shall call upon all the people engaged in the apple industry to contribute a portion of the expense. At first the trade did not take kindly to the plan, as it was feared that vessels could not be found to carry over the apples. Then the idea was conceived of chartering a ship which would take nothing but apples; and we believe that when the purpose is disclosed to foreign governments none will oppose free passage of our ship, for it will go on a mission of charity."

R. J. COYNE (of Coyne Bro's, Chicago),
Chairman Publicity Committee.

Please notice the italics in the letter

above. If the belligerents could agree on this one-day armistice, might it not open a way toward ending the war at once and for ever? Jane Addams, who is now at the seat of war, says the only difference between the men who are fighting is the difference in their uniforms.

Our good friend Coyne sends with the above letter a list of about 75 fruit-dealers and commission men, located in as many of the principal cities of the United States, and, as I understand it, these great commission firms, and every one else, are going to work to load a ship with apples, this ship to sail Oct. 19.

CRIME A DISEASE, ETC.

From away off in Honolulu comes a periodical called *The Friend*; and this little magazine is indeed a friend of humanity. See clipping below from *The Friend*:

CURING CRIME.

Mr. Osborne's splendid management of Sing Sing prison is concentrating the best thought of the country upon the newer methods of restoring criminals to health as productive members of society. In three and a half years Warden Homer at Great Meadows, in New York, has been conducting his prison farm with such success that of 1400 paroled men only 40 have been returned to confinement. This system of treatment has been tried elsewhere with like results. Hence it is not strange that New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Minnesota, and Virginia are already embarking upon similar experiments with prison farms, and not a few other states are finding that outdoor work for prisoners under right conditions gives the most gratifying results. Hawaii has been practicing the same method for years and with great acceptance. Though we have no prison farm our wardens have been most successful in utilizing outdoor work as a means of training men back to normal habits. In this connection Mr. Ford of automobile fame has rendered the country lasting service by his graphic declaration of his willingness, after careful experimentation, to attempt in his factory the reformation of any criminal. Crime is now recognized as a social disease, no case of which can be pronounced incurable. The next step is to train social physicians to become experts in the treatment of this malady, and then to intrust all patients to their care. Meantime side by side with this procedure social hygiene must be employed to counteract the unsanitary social conditions amid which this disease is generated. This is a long task, but it is as sure of success as Dr. Gorgas was in rooting out yellow fever from the Panama canal zone by exterminating the stegomyia calopus.

After intoxicants have been banished from Honolulu and every other spot on the face of the earth, a great part of the crimes of the world will be banished. And if criminals can then be treated by good men and women in the different states and nations we shall have gone a good way in showing the world that "God's kingdom" is coming.

The clipping above comes right in line with the work done by Chaplain Kiplinger, mentioned in *Our Homes*.

HIGH-PRESSURE GARDENING

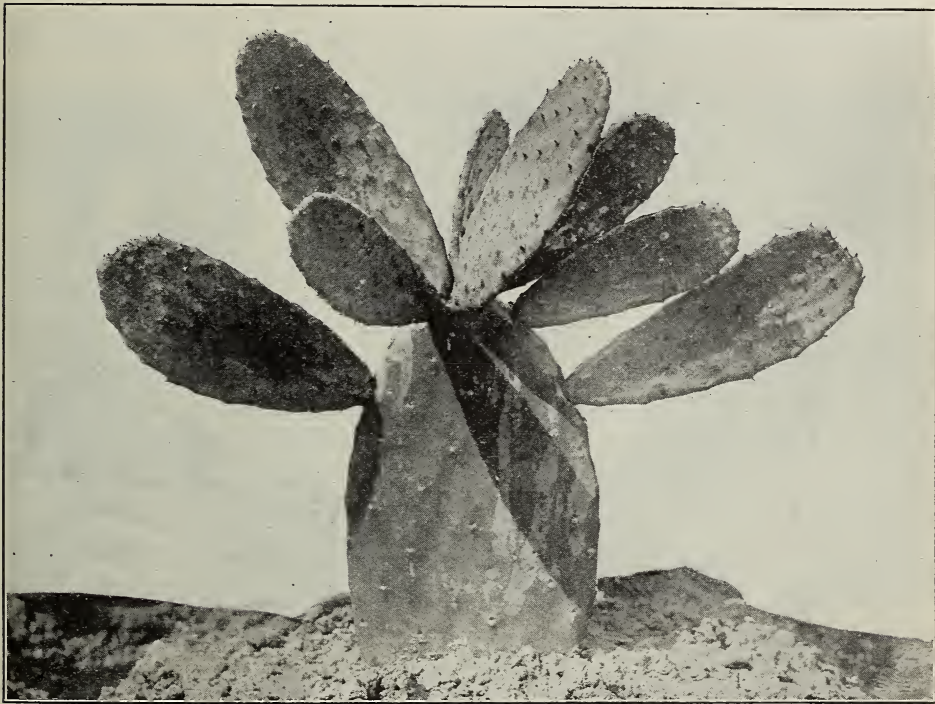
SPINELESS CACTUS, ONCE MORE; WHAT OF THE FUTURE?

By comparing the picture adjoining with the two pictures shown in our issue for Aug. 15, you will notice the growth in 29 days has hardly been equal to that made in nine days the last of July. Very likely the slower growth was due largely to the excessive rain. In fact, it has rained almost every other day, and sometimes *every day*, clear on till near the middle of September. We learn from good authority that so much wetness is pretty sure to pro-

I shall pull off the new slabs and pack the whole plant so as to take it in my trunk down to Florida. My impression is, these slabs can be kept several days or even weeks without impairing their vitality. In fact, we are told that the slab starts better after being kept out of the ground so as to become somewhat wilted.

SOMETHING ON THE OTHER SIDE OF SPINELESS CACTUS.

In a recent issue of the *Florida Grower* appeared an article by Fred N. Burt. Mr. Burt became enthusiastic about spineless



The spineless cactus (pictured on page 691, Aug. 15) 29 days later. Photographed Sept. 2.

duce rot; but in order to *obviate* the effects of so much wetness I dug a ditch or trench and piled the dirt up around the cactus so as to form a sort of pyramid. Then I made a ditch to carry off the surplus water; and I am inclined to think, especially on heavy clay soil, like that of our Medina clay, the cactus should be planted on a ridge, very much as they grow sweet potatoes in the South. So far I notice no tendency to rot. Should frost occur I expect to cover the plant with canvas; and when it becomes severely cold, toward the first of November,

cacti; visited Wyoming, Colorado, New Mexico, Arizona, and California; talked with Burbank himself and other promoters of cacti; and although Burbank told him he feared it would not succeed in Florida on account of so much rain, he pushed ahead in his project of growing cacti for beef cattle in Florida. He even went so far as to purchase toward a thousand slabs comprising the best varieties. Below is an extract from what he says about it:

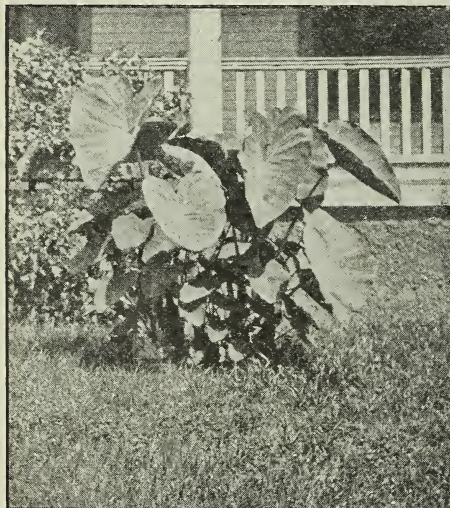
They were received by me in splendid condition at DeLeon Springs, Florida, on April 9, 1914, and

placed on high, dry, sandy soil. Every instruction was carefully followed, and for the next sixty days the plants seemed to prosper. Then, slabs commenced to show rotten spots; and on opening them up we found they were filled with soft white worms resembling a maggot. The outside edges of the slabs were also attacked by a hard hazelnut-shaped bug which bored holes along edges.

We used a solution of arsenate of lead spray, whale oil, sulpho-tobacco, and other sprays without results; have carefully and frequently examined plants and destroyed the pests; have written to every one whom we thought might suggest a remedy, but without securing any relief. The entire field is now just about finished, and I expect soon to plow under what little is left.

None of the promoters of spineless cacti admit that this plant has any insect enemies—in fact, I have observed advertisements that stated that it has no insect enemies. The rainfall in Florida is more than twice the amount Mr. Burbank stated it could ordinarily stand. While in California I was not told that experiment after experiment had been tried in Florida, and was allowed to believe that I was a pioneer.

have been a feature of that particular locality. Another thing, in starting any new crop, whether it is celery, strawberries, corn, and I might almost say *wheat*, in any untried locality, there are usually more failures than successes. In fact, there are failures everywhere. Look about you wherever you may be located; take a trip on the cars, and see how many failures there are to one real success, and see if it is not true that it is largely in the man (or boy) who goes at it. I am not going to try to grow cactus on a large scale; but I expect to try to grow enough to give my chickens green food; and I will try to give you some pictures as I go along. One thing I have spoken of already is that spineless cactus in Florida and here in Ohio can be *made* to make an astonishing growth in just a few days or a few weeks.



Dasheens in Dayton, Ohio.

The Agricultural Experiment Station at Gainesville, Florida, states, April 2, 1914, that "Spineless cacti planted in the state in the last six or eight years have all gone to the bad. It seems that the spineless-cactus salesmen have been the only ones who make anything out of this."

Perhaps most of the friends would think that after the above report I would give up thinking I can grow cacti with profit in Florida; but let us consider a moment. This man went in on a large scale the very first thing; and I would urge, and have urged for years past, that no one should undertake to keep bees, chickens, or grow any crop, especially in a new locality, until he has first experimented on a small scale. Do not go in heavily on any new thing to start with. The main trouble mentioned in the above is the insect enemies, and these may

"THREE CENTS AN HOUR;" DASHEENS IN OHIO;
REMEDY FOR CUCUMBER-BUGS; IS IT EVER RIGHT
TO GO TO WAR?

Dear Bro. Root:—Although I am out of the bee business I want the journal for Our Homes, etc. I read several times over the May 15th issue. It alone is worth the price.

I want to say a few words about your paying boys three cents an hour years ago. Well, when I was 14 years old I hired out on a small farm for \$2.50 per month for seven months. I went to school five months without pay—only my board. I bought my own clothes. The fifth year they paid me \$4.50 per month. At 19 I set in to learn the shoemaker trade. I served three years as apprentice; got (big pay, of course) \$16, or \$48 for the three years, board and washing included. I saved my money, and always had a little for the Sunday-school basket. Some of you young kickers don't know what your fathers had to contend with. Common laborers received 75 cts. to \$1 per day, and raised their families too.

Last summer my grandson took a snapshot at my front yard where you see the dasheen and your

humble servant. They were just 41 inches high. I had a fair yield; ate some of the bulbs, and found them very good. I did not use the stalks or leaves. I had it as an ornament in the front yard. I have no room in my back yard.

Some years ago I had planted quite a lot of cucumber seeds. They came up nicely; but one day the striped bugs came by the hundreds. The creek bottom being close I went down and pulled up a big armful of spearmint. Some call it peppermint; but it is spearmint. I dropped a bunch of the mint on each hill, and went home. Next day there was not

a bug about. I did not bother any more that year, and the green mint kept the ground moist several days.

Now about the war. I agree with you in your answer to the young man (Mr. Gibbon). I carried the musket in our Civil War 50 years ago. While I am for peace, yet, old as I am, if the flag demanded it I would shoulder the musket again. If I could not stand up I could lie down to it. May the good Lord bless and keep you in good health many more years is my prayer.

Dayton, O.

H. BRENNENAN.

HEALTH NOTES

DEAFNESS—THE BORACIC-ACID REMEDY.

Since the article in the July 1st GLEANINGS appeared, exposing, as I supposed, an intended humbug and fraud in regard to "enserol," I have had quite a number of letters something like the following:

Mr. Root:—My wife has become interested in what you have to say about the use of boracic acid in GLEANINGS for July 1. She is bothered with a roaring in her head, and wishes to try the treatment named, and would like to have you tell just how to use it—whether warm or cold water, and about what proportion or strength to have the wash. Also how often.

Bates, Ark., Aug. 2.

H. C. BETHEL.

I wish all the friends who want to know all about this matter would hunt up GLEANINGS for September 15, 1914, as that gives all the information I am able to furnish. The directions I copied from that "woman's story" I give again as follows:

This is the copy of the prescription given me:

Pure glycerine, $\frac{1}{2}$ ounce; fluid enserol, 1 ounce; boiled water, $2\frac{1}{2}$ ounces. Mix.

Put one drop in both ears, night and morning.

Wet the forefinger, and rub the solution full strength, behind and below the ears.

Pour ten drops of solution in one-fourth glass of warm water, put some in palm of hand, and sniff up the nostrils, night and morning; also gargle the throat with the same strength solution as used in the nostrils, night and morning.

But instead of buying the expensive enserol, use boracic acid. I think your druggist should be able to tell you about how much.

Here is something from one who has been a good friend of GLEANINGS for many years that seems to be a sensible explanation for the roaring in the ear:

Mr. Root:—The "roaring sound," as it is commonly styled by those who experience difficulty in hearing, is not an indication of deafness, but that the drum of the ear is still in a healthy condition, and that the passage from the outside to the drum has become closed with wax-secretions, preventing sound waves reaching the drum, which in its muffled condition will then record the faint sounds made by the blood as it gurgles through its veins. A similar effect is obtained by a healthy ear being covered by the shell of a sea conch.

Procure a water-bag with a piece of hose attached; or, if you can, obtain a small jet of water in any other manner. Have some one direct the jet into the ear for a minute or so, when the lumps of

wax will come out, sometimes tubular pieces the size of the ear in diameter, and an inch long. Water will do this work splendidly, and there is absolutely nothing gained by using drugs.

Lake Roland, Md.

BENJAMIN B. JONES.

Before receiving the above letter I had satisfied myself that the roaring was caused by some of the "machinery," if you will excuse the word, in the patient's body; and I rather decided that the coursing of the blood had something to do with it. Friend Jones suggests that pure warm water may be as good as the remedy. I am inclined to think, however, that the boracic acid and glycerin more thoroughly cleanses the nostrils, throat, and ear, than pure water alone.

I used it according to directions twice a day for a month or more; and the passages between the ear, throat, and nostrils were certainly cleansed better than I had ever been able to get them before; but I cannot detect any improvement in my hearing. Some years ago I sent to some doctor out west for an apparatus and medicine to restore hearing. He advertised "no cure, no pay." A part of his instructions were a systematic massage with the fingers around the ear, throat, etc. After following his directions I decided there was at least some improvement in my hearing, and I sent him the five dollars. I think I wrote him that my opinion was that the massaging had more to do with the improvement than the medicine. A year or so ago a good lady somewhere in the East wrote me she thought I could get help by giving my face around the ears a good rubbing with the fingers twice a day or more; and she gave minute directions how to do it. If she should see this and will kindly give it again I shall be glad to publish it. I have lost her address, and therefore cannot find her kind letter just now.

Friend Jones suggests that the roaring is caused by the passages being stopped with earwax, etc. But the enserol and glycerine will remove all accumulations in the ear better than anything else I know of. At the present time I have not noticed any

roaring for some time back. I think it is more apt to occur when I catch cold.

Let me suggest in closing that a thorough cleansing and washing of the whole body every day is certainly a good investment of time—much better than depending on drugs of any kind. Let me say again that I give my whole body a thorough washing every day of my life, and this includes eyes, ears, throat, teeth, and everything else; and in washing my head I devote extra time to massaging with my fingers all around my ears and throat in order to stir up to activity as much as possible these useful and important adjuncts to the enjoyment of life. After being thoroughly washed and rubbed, while free from clothing or other obstructions, I swing my arms and go through with my physical exercises I have before mentioned, so as to get up an appetite for breakfast; and after I get dressed up I feel in excellent trim to go out and hoe in the garden until Mrs. Root pounds on the window. About that time I am in good shape for *breakfast*, you may be sure.

THE PATENT-MEDICINE BUSINESS AND QUACKERY.

I hold in my hand a 24-page pamphlet sent out by the American Medical Association, of Chicago, entitled, "At the Bar of Public Opinion." This pamphlet quotes from thirty to forty leading periodicals in regard to the patent-medicine business. Among them are *Collier's Weekly*, *Harper's Weekly*, *New York Tribune*, *Burlington Hawkeye*, *Chicago Daily Tribune*, *Labor World*, *Cleveland News*, and the *Rural New-Yorker*. We quote from the latter:

When all publishers realize, as all will be forced to realize, some day, that they cannot retain the respect of their readers and print sermons on one page and advertisements of fake medical nostrums on another, there will be less need of government supervision over journalistic enterprise. The very fact that "a sick man will try anything to get well" places an obligation upon publishers which they can no longer afford to ignore.

It seems the whole wide world is waking up to the waste of money and damage to health that comes from the drug habit or from answering some newspaper advertisement instead of consulting a family doctor or some educated physician who has the reputation of being a good honest man. The editor of the *Rural New-Yorker* made use of this expression in a private letter received a few days ago:

The idea of doctoring a man by mail, never having a chance to see him or examine him personally, has always struck me as a fool proposition.

Of course the quacks and patent-medicine venders say the doctors are against them because it injures their business; but

I think this is a mistake. Much of the business, especially the serious and difficult business that our doctors have to meet, is the patient who is seemingly beyond recovery from the use of stimulating or habit-forming drugs. I know something about the matter, for a near and dear relative found she could not go on with her work in the office without the use of headache powders; and she kept on using them until she was suddenly stricken down; and in spite of all the aid a competent physician could give she died in just a few hours. Why, I am ashamed to confess that, years ago, we kept headache powders in our store, so that any of our help in any of the different departments could go on with his work by using headache powders when otherwise he would have to go home and take a rest.

This same pamphlet I have mentioned contains a list of leaflets exposing and explaining the various medical fakes such as cancer fakes, consumption-cure fakes, epileptic-cure fakes, medical institutes, mineral waters, oxydonor and similar fakes, san- atogen, cure for drinking, smoking, etc.

Just a word about cancer and consumption. I believe that the general opinion of those who are best able to judge is that *every medicine advertised to cure cancer and consumption is a fake*. Of course all these diseases may often be cured, but the cure does not come from the stuff that you get out of a bottle. Consumption is cured by getting in the open air, getting interested in something that not only occupies the mind but the body as well—every muscle of it if possible. A few years ago a man who was pronounced incurable by the doctors on account of consumption took it into his head that he could go to California on foot. When he started out he could walk only a short distance without resting. But he had pluck enough and faith enough to keep on; and he soon discovered that he could walk a little further every day than he had done the day before. In this way he got well and strong.

Down in Florida you can find almost any number of people who got well after the doctors had given them up by going down there and keeping chickens, bees, or making garden. They simply got busy and happy with something that kept them *outdoors* under's God's blue sky every hour of the day. Some of them not only worked outdoors but slept outdoors and *ate their meals* outdoors. When the world wakes up to the fact that this is the only way to get well, the venders of stuff put up in bottles will be driven to some other method of making a living.